DOCUMENT RESUME

ED 169 995 JC 790 297

TITLE Changing Work Force Needs with Implications for Higher Education. Proceedings of the Wingspread Conference (Racine, Wisconsin, October 23-24, 1978).

INSTITUTION Johnson Foundation, Inc., Racine, Wis.

SPONS AGENCY Gateway Technical Inst., Kenosha, Wis.; Office of Education (DHEW), Washington, D.C.; Wisconsin State Board of Vocational, Technical, and Adult Education, Madison. Research Coordinating Unit.; Wisconsin Univ. - Parkside, Kenosha.; Wisconsin Univ. - Stout, Menomonie.

BUREAU NO 06-170-150-319

PUB DATE Oct 78

NOTE 170p.

EDRS PRICE MF01/PC07 Plus Postage.

DESCRIPTORS Changing Attitudes; *Educational Objectives; Futures (of Society); Junior Colleges; Labor Force; Manpower Development; *Manpower Needs; *National Demography; Population Trends; *Postsecondary Education; *Social Change; Technical Institutes; Technological Advancement; Working Women

ABSTRACT

Four conference presentations analyze changing workforce needs and consider their implications for higher education. Richard Hey presents an overview of trends in lifestyles in the United States, discussing the changing roles of women, new structures of primary relationships, mid-life career change, increased lifespan, and attitudes toward materialism and sexuality. In a second presentation, William L. Abbott reviews higher education's response to the technological revolution in relation to the effects of changes in technology on labor, management, and education, to the role of technical and community colleges, to student attitudes toward their education, and to educational responses to workers' needs to change career direction. Two papers, by Hazel Reinhardt and James Hickman, discuss demography. Ms. Reinhardt summarizes sociological and demographic trends such as the increase of an older population through a decline in the fertility rate and a rise in life expectancy, expanded participation of women in the labor force, growth of service occupations, and the phenomenon of population migration and distribution. Dr. Hickman illustrates other trends with graphs outlining birth rates, labor force participation, and changing age composition. Results of small group discussions by conference participants and summations of the conference presentations are reported and appendices are included. (MB)

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> "The future is not a result of choices among alternative paths offered by the present, but a place that is created - created first in mind and will, created next in ability. The future is not some place we are going to but one we are creating. The paths to it are not found but made, and the activity of making them, changes both the maker and the destination."
>
> John Schoor

The research reported herein was performed pursuant to a grant or contract with the Wisconsin Board of Vocational, Technical and Adult Education, partially reimbursed from an allocation of Federal funds from the U. S. Office of Education, U. S. Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgement in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official State Board or U. S. Office of Education position or policy.

FINAL REPORT
Project Number 06-170-150-319

Changing Work Force Needs with Implications for Higher Education

October 23 - 24, 1978

Sponsored by:
Gateway Technical Institute
University of Wisconsin - Parkside
University of Wisconsin - Stout
Wisconsin Board of Vocational, Technical
and Adult Education

In Cooperation With:
The Johnson Foundation

Location: Wingspread
Johnson Foundation, Inc.
33 E. Four Mile Road
Racine, Wisconsin 53402

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PREFACE

We invited you to share with us thoughts about the future which create career paths leading to tomorrow.

Only through an exchange of information between business, industry can education stay current with their needs. The purpose of the conference was awareness, understanding, and communication of changes that are taking place in the work force that will have implications for the higher education delivery systems. This conference brought about an exchange of ideas about future planning among the educational agencies. The conference also improved communication, understanding, coordination, and cooperation among the governmental, economic and education sectors which resulted in community leadership and direction to meet the needs for emerging occupations.

The framework for the conference was an examination of three factors that influence the characteristics of the work force in the next decade and beyond.

1. Technological Changes are reactions to environmental influences which result in new techniques of delivering products and services. For example, factors affecting technology include energy, transportation, communications and population growth. Technology was once considered the ultimate solution in successfully meeting the needs of today's society. It is

now being realized that technology is not the only factor in meeting these needs. There are problems of our society which do not yield to technology and which are the result of changing life styles and demography.

2. Changing Life Styles are the concepts of the individual's role within the family and social groups. Considerable social change is taking place in our society at a rapid rate, which requires significant changes in our life styles. Some of these social changes are: increased leisure time, unemployment, women's role, single parent families, and the extended role of education.

3. Demographic Changes are changes in population characteristics. This includes age, sex, race, educational level and occupation. Occupational trends are being influenced by an older population, increase in average educational level, and the increase of women and minorities in the work force.

These three factors, technological changes, changing life styles, and demographic changes, interact to influence the occupations which are emerging to meet the needs of society.

HUBERT BRAUN
Facilitating Chairperson,
Conference on Changing
Work Force Needs

ACKNOWLEDGEMENT

The Wingspread Conference on Changing Work Force Needs With Implications For Higher Education was highly successful in that it initiated an unusually meaningful dialogue between business and industry, and with educational planners to help meet the needs of tomorrow.

Excellent presentations by William Abbott, Richard Hey, James Hickman, and Hazel Reinhardt provided highly valuable insights for the future. Don Galbraith, serving as a distinguished moderator for the program, maintained the conference objectives and added to the personalities of the participants.

The conference sponsors, Gateway Technical Institute, University of Wisconsin--Parkside, University of Wisconsin--Stout, and the Wisconsin Board of Vocational, Technical and Adult Education are commended for their cooperative effort to face the challenge of striving to identify tomorrow's educational pursuits.

The conference planning committee members should be congratulated for the many hours of careful planning which culminated in a very rewarding conference. These members were Orville Nelson, Richard Keehn, James Polczynski, Gerald Chlebowski, Hubert Braun, James Pierce, Harold Sahakian, and Chairpersons Harold Halfin and Kenneth Mills. Ned Perri's efforts in arranging the many details and contacts necessary for the smooth implementation of the conference deserve special commendation.

Business, industry and government representatives were most cooperative and should be recognized for their participation and informative insights. These representatives included: R. James Alexy--Brown Company; J. G. Austin--American Motors Corporation; Michael Bauernfeind--Wisconsin Electric Power Company; A. O. Bixler--Modine Manufacturing Company; Joe Brunner--First National Bank of Milwaukee; Paul L. Cherrier--Northwest Fabrics; Frank Durham--Jacobsen Manufacturing Company; William F. Gardner--Ladish Company; Ray Meier--3 M Company; Roger S. Morley--Arthur Anderson and Company; John Peterson--Racine Federated, Inc.; Jack B. Reihl--Wisconsin State AFL-CIO; David W. Retzinger--Perfex-McQuay-Perfex, Inc.; Wilbur F. Shurts--Twin Disc, Inc.; William Wilbert--Wisconsin Manufacturers and Commerce Association; John Worrell--Western Publishing Company.

The educational leaders representing their respective institutions, Alan Guskin, Eugene Lehrmann, Keith Stoehr, and Robert Swanson are recognized and thanked for their extremely helpful support, as well as their professional and productive participation as group discussion leaders.

The Johnson Foundation was most gracious in providing its excellent Wingspread facilities and staff. A special thanks is given to Leslie Paffrath and Richard Kinch for their outstanding efforts to insure the success of the conference.

Sincere appreciation is extended to the Gateway court and conference reporting students who diligently and courteously recorded and transcribed the notes of this conference.

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William Abbott

Hazel Reinhardt

James Hickman

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PRESENTATION ON CHANGING LIFESTYLES

By DR. RICHARD HEY

> Dr. Hey received his undergraduate degree from Andover Newton Technological School and his Ph.D. from Columbia University. He has authored numerous publications and his had extensive professional and clinical experience in the area of family counseling and changing lifestyles.
>
> His present position is Professor and Head, Family Social Science, University of Minnesota, Minneapolis.

Since lifestyle, by definition, is the way persons live and the way they work at the living arrangement and the structure of that relationship in daily living, each person is an expert in his own lifestyle. Each of you knows about your lifestyle. I'd like to present an overview of some of the trends we are seeing in lifestyles in the United States today.

The number and the ratio of women who are working outside the home has been called the single most significant social fact in the United States today. In March, 1978, over 50 percent of all adult women were employed or looking for a job--more than any time in our history; 45 percent of married women were employed outside the home and 37 percent of mothers with children under six years of age were working outside the home.

The wife-mother employed outside the home is related both to an increase in the divorce rate and greater stability within families. Economic dependency as the basis for keeping a

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family or marriage together is no longer the rule as it was in the past. Families have adequate income to realize more of their goals. In some families, the income acts as a deterrent to working out problems and in other families it is an impetus for achieving some of the goals that they have chosen.

Concerns for adequate child care become more important in today's world with the wife-mother needing some help outside the family. We find that fathers are playing a more self-conscious role in child care. And we find in some families the traditional mother-father definition is no longer adequate for the explanation and existence of what is proper. Nurturing is becoming less a sex-differentiated role and more of a shared human role with both men and women having a capacity for tenderness and gentleness and nurturance.

Related to the women's movement is the beginning trend in delayed marriage. Trends toward college and technical training are delaying marriage because we are finding greater satisfaction in developing a career and moving into jobs--delaying marriage and especially child rearing. Consequently, families are smaller and will become even smaller within the early years of the 21st Century. The average number of children per family now is 1.07 and the average family is expected to be much smaller in the future. Because the wife's career may not be enhanced by such a move, men are no longer as free to move for the company. In 1977, 3% fewer people moved their residence than in 1976. Some transport companies are considering this a trend, however slight at present. It is anticipated that our population will be less mobile in the future than it has been in the past.

There are strong pressures on women to consider the family at least as important as their careers so that the traditional reward system is not working for women, and certainly we are going to find this among men. Men are making the decision not to move and accept a promotion if it interferes with the wife's goals and the shared ambitions of the two.

Then there are some observations about lifestyles with relation to the women's movement. Women who want to work and to achieve and men who accept that they don't have to be the sole provider are defining themselves in a different way. The definition of a woman is no longer defined as passive and soft. Many are finding that they have a capacity for scientific thought, clear thinking, and logical decision and they are being rewarded. Men are not defining themselves as someone having to be the sole provider for the family. Indeed, less than 8% of the population in the United States today fits that traditional pattern where the man is the sole provider working outside the home and the wife is the homemaker and mother working inside the home.

Furthermore, couples are living together and not getting married. They are keeping company together as economic equals, setting up housekeeping and maintaining a relationship as long as it is satisfying to each of them. Each is free to move out whenever the relationship seems not to be satisfying. Along with this less traditional lifestyle, the number of couples who opt not to parent is increasing.

Evidently, couples who do not have children have resented being called "childless" couples, as if it means there is something lacking in their relationship. They choose to be called "child-free", which has a more positive connotation than the connotation indicated in "childless". From their point of view, this indicates a voluntary "child-free" existence, which means a totally different kind of lifestyle.

That does raise an important question. What is the definition of a family? Traditionally, the family has been defined as two generations--children and parents. Today, with the "child-free" couples gaining in numbers, we should probably redefine what we mean by "family". New structures of primary relationships are beginning to be observable to a greater extent. Some have related this to the impersonal nature of urban society. Some have related this to the fact that women are working outside

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the home. Women have more power and therfore greater independence. Possibly this then relates to being less intimately involved with their spouses and children. I am not at all sure that this kind of reasoning is adequate, but we have been able to observe that there seems to be a greater seeking after intimacy.

Another new trend is the fact that there are some same-sex marriages being attempted. These are not legal at present, but there are homosexual unions that have lasted for many years, and they are beginning to be more of a force in demanding rights along with the gay rights movement. Groups of persons who are committed to each other with or without sexual access can have a commitment to each other organized around religious ideals, economic necessity, or an economic goal, or drugs. For very practical legal reasons, many of these groups would like to have a definition from the social sciences as to whether they can be considered a family. They can't sign a lease or if they do sign a lease, they can't be held to it. They are no legal entity as a family and there is some pressure from groups to tell us what is meant by "family." Some of them say we have to do everything a family does except make babies.

Women with children who have divorced are in some instances joining resources and they share child rearing and mutual support for their loneliness by sharing a common household. This does raise again not just the definition of a family but also brings to mind the confusion in our senses about the household and family. Most of the economic literature connects talks about household not so much about infinite relationships and concern about how the persons in the house are related, but they talk about household in the sense of being headed by a male. Indeed, lists of heads of households are femaleless. Is this a family or not a family? There is a widespread movement in the United States across all social classes and economic lines seeking group experiences. You can almost support yourself by announcing weekly groups, encounter groups, sensitivity groups, communication groups. Persons in growth groups or dying groups seek education or warmth.

Persons seem to be seeking some greater intimacy by going into groups. It seems to me that this relates to a lessening of investment with work. We are not taking our identity from our jobs so much anymore and are seeking this identity in intimate relationships with others. Shorter work weeks and flex-time are enthusiastically supported by persons because they see this shift in arrangements giving them more time for themselves to perhaps find a greater sort of personal fulfillment in the other sectors of their lives. If there is indeed a lessening of investment with work and a movement toward taking less of the definition of oneself from the work that one does, there seems to be also a greater dissatisfaction with careers and concommitant career change.

The career change in mid-life crisis is getting a good deal of play in the popular literature right now. We are seeing a greater willingness to change a career and move out of a job for personal reasons. A person might want to leave what he has been doing even if he achieved some success at it because there are new fields to conquer. The most dramatic cases probably are the physicians who give up the practice of medicine to go into a different kind of field or dentists who are highly trained, skilled professionals who say there has got to be more to life than this.

Moving into the more mundane level of workers who are not as highly skilled and not professionals, there seems to be a demand for a bigger voice in business decisions that affect job performance. Workers have begun to show a concern about the quality of their working life. Persons are talking about QWL quotient. What is QWL quotient? Quality of worklife quotient. The workers are saying they have a right to look at the quality of their work life.

Determining a method by which workers and management share company policy making has attractions for workers who are better educated and who have the ability to participate in defining their own jobs. The kind and quality of education that we are getting today and the kind of decision making skills that students are experiencing in their secondary and vocational educations are indicating that they have greater capacity than used to be assigned to the laborer. This means again, of course, that many persons are finding that personal growth or fulfillment is their priority and this, for may reasons, excludes children and even marriage or precludes children and marriage at the traditional marriage time and the traditional child-bearing years. In the framework of family investment, we are having to re-think some of the perimeters of the family. Because of these newer arrangements whereby child-bearing is postponed, we are having to look at different definitions of family.

The women's movement has compounded competition and dissatisfaction between marriage partners and among family members when it has focused on income production. When we look at the women's movement merely as a movement in which women are encouraged to get outside the home and to deny the validity of the homemaker and the child-rearer roles, we find that there seems to be greater chance that marital dissatisfaction will result. When income production is perceived as an ingredient that promotes greater respect between marital partners, we find that masculine-feminine, male-female, men-women equality counteracts the competition and the dissatisfaction that is observable when it is just an income producing activity. We find that the women's movement has indeed some of the potential for releasing men for different role definitions and releasing men from the pressures of being the sole provider and that it has acted as a stabilizer in those instances.

Perhaps the obvious change is that our population in the United States today is aging. There is a higher percentage of third and fourth-generation families today than ever before in our history.

In the United States we never really had a predominant extended family with grandparents, parents, and children all in the same family with aunts and uncles by the dozen around celebrating family reunions as our myth has it. The reality of the American family history is that we have always been a nation of nuclear families--parents and children. The predominant pattern has been the same kind of pattern that we observe in our suburbs today. We should look beyond what the poets say and beyond the kind of myths that people bring up when they say that there is something wrong with the present. They look back to the past as if it had been that ideal time. Someone has said that what we do is imagine our past and remember our future. We plan for the future as if it came out of our memories and what we thought was the past comes out of our imagination. Maybe we could just turn that around. I suspect what we would have to do is bury the past. Leave it there.

Caring for aged parents is one of the major concerns that we find among middle aged persons. Our concerns for child rearing and bringing our children to adulthood comes at a time when we are also concerned about parent care and having to provide for our aged parents. Studies of three generation families have found that the generation in the middle--the middle years--is the generation that has the most giving to do; greater demands on time and energy and money resources going in both directions. It is reciprocal, but the greater demands are those on middle age.

In 1837, the average number of years lived was 37 and in 1900, that increased to 50 and in 1975, one out of ten persons in the United States was 65 or over. The population has shifted. We assume that because of improved health care, improved human conditions, healthier living conditions that we have added years onto the end of life. Now, in reality, persons were always born when they were born and when they died was the end of life. We have added,in this century, something new and that is the concept of the middle years. We never had middle-age. We have not added these years onto the end of life, but have created "middle-age." We have made middle-age long and longer. We used to think that persons were going to retire younger and that there would be a middle-aged and younger retired population. Now we are not so sure with the later retirement age of seventy.

If the projections of the economy are accurate, persons will need to work longer in order to starve slower. Different kinds of services are needed for the aging population. Services are needed that will enhance their lives--services that make for more comfort instead of just maintaining life. To keep an aging population vital and productive is a very different goal for a society than merely keeping an aging population alive.

Being products of the work ethic, the present retirees have the attitude that they have earned their rest. With the increased life span, the older solutions of retirement communities will be inadequate. Other solutions will have to be found. Some feel that the inner city should be developed again for the aging population because there is a greater opportunity for transportation and services there. Most men in the early years of retirement--65 to 85--are married and living in their own homes, but only 48% of women of those ages are married and living in their own homes. We talk about the middle years as a time of change.

New positions in industry are needed to be defined for men of experience. Many persons in the middle years are seeking new careers that are satisfying and create a new sense of oneself and one's definition. The move for persons to seek fulfillment for themselves primarily,and this interest in their own satisfaction,has to do a great deal with the different kind of housing available today and what is in the greatest demand.

Some persons seek to experience and fulfill their need for individualism and personal growth. Security minded people plan for future savings and investment. Persons who are looking for security primarily look for their security in things and in the accumulation of things. This has been seen at times in our adolescent children enjoying what is called the middle class lifestyle. Security minded persons very frequently are found in the suburbs. They are persons that have lived in many homes. When they get enough of a mortgage paid to move on to a larger home they do so. This planning for future savings and investment concerns seems to be a high priority for what I have called a security minded lifestyle.

Then there is what we sometimes call a sophisticate lifestyle. This is the group that is dedicated to the good life or at least the best life that they can afford. They are the persons who have their homes and apartments "decorated" rather than furnished. They are interested in the arts, theater, and ballet. They are also interested in food as an intellectual subject.

Then there is what some persons call the hedonistic lifestyle. That is the emphasis on leisure and material things are used for the leisure they bring. Sometimes the hedonistic lifestyle includes doing without many things out of concern for the ecology. But when it comes to the automobile or the boat travel, concern for the ecology is often sacrificed for pleasure. This lifestyle is one that gives a great deal of concern to parents and to moralists because it seems to go along with a much more casual attitude on sex.

I believe that among the security minded lifestyle there is just as much interest in sex and sexuality and probably as much interest in non-marital, extra-marital, and pre-marital sex, but with the hedonistic lifestyle sex is more open.

Someone has said that the greatest danger to our traditional lifestyle and what is causing the greatest change in the United States today has been our emphasis on individualism, pleasant surroundings, the good things of life, etc. Some persons think this attitude is more eroding of our social institutions than any other aspect of modern life. I don't know if we can make these simplistic statements today about what is going on in our society.

We have many alternatives from which to choose. Not just our young people, but middle aged and old men and women alike are making changes in the way they want to live. The task is for us to be conscious of these changes so that we don't say what we are doing is caused by someone else. What we are doing is caused by us. We are the cause by interacting with our environment.

CAN HIGHER EDUCATION MASTER THE TECHNOLOGICAL REVOLUTION?

By WILLIAM L. ABBOTT

Mr. Abbott received his professional degrees in American Social History from the University of Wisconsin. He is the author of several books and articles and is the current editor of "Careers Tomorrow", a monthly publication of the World Future Society.

His present position is Director, Service Center for Community College - Labor Union Cooperation, American Association of Community and Junior Colleges, Washington, D. C.

There have been times in human history when education and technology were wedded.

The unity between work and life appears throughout history in nearly all forms of society. This unity has helped to give people an identity, a meaning in life, group adhesion, pride in their work and a good practical education.

Colleges have begun to recognize the worth of social technology. On an increasing number of our campuses we are integrating social technology and material technology.

The movement in higher education is one of bringing labor and management together. These two groups have to unite over the issue of education because of the great technological changes taking place in industry.

Rapid changes in technology mean that labor, management, and education are going to have to work much more closely together.

We are talking about a fundamental concept: changes in work accelerate. Between 1949-1965, 8,000 kinds of jobs vanished from the labor market. At the same time, over 6,000 new jobs emerged. Occupational Outlook, a Bureau of Labor Statistics publication, has recently listed 2,000 new jobs.

Higher education will have to produce a worker who has the learning habits to adapt to new lines of work. The future value of higher education will not be so much in training young people for a specific skill but in teaching youth sound learning habits. People will be coming back to college throughout their lifetimes to pick up new skills. A student should learn as much as possible about a whole industry, trade, or profession in order to be able to make rapid work changes in the future. The student who simply learns a single skill will be lost when this skill becomes outdated.

Technical and community colleges have a future of more growth in store for them. It is estimated that eighty percent of the high-demand jobs of the future will require less than a four-year degree but more than a high school education.

Community colleges are so popular that they have expanded from 660,000 students in 1960 to over four million today. If one counts the three million extension students, there has been a 463 percent increase in the extension area alone in the past ten years.

The average community college student is just as likely to be a woman as a man. He or she is a full-time worker, is age twenty-nine, and goes to school at night. In 1965, only 13% of community college students were taking vocational courses; today well over half of all students are in some form of occupational education.

It is worth repeating many times that we are living in a time of accelerated change. A growing number of higher education institutions are integrating technological innovations into their curricula. They are offering newspaper, television, radio, and telephone courses, even courses on trains for commuters.

Higher education today may not need a campus because it is becoming a delivery system which goes to the people instead of making the people come to a campus. Colleges can reach more people and more age groups and meet more lifetime needs under the new system.

To show how seriously adults take their education, consider that ten years ago 13 million Americans were enrolled in some form of training or education. Today the figure stands at more than 17 million. This figure points to the fact that because of accelerated change we need to keep continuing our education to cope with the alterations in our work and society.

Economists like Peter Drucker say that we are now entering a knowledge economy where the knowledge worker will predominate. Our world is changing so quickly that unless we constantly update ourselves we will become progressively more incompetent.

"Juniority" thus challenges seniority. Employers seek out the juniors for their up-to-date knowledge. This does constitute a threat to the seniority principle and is reason enough for encouragement of lifelong, continuing education for working adults.

We must work for integration of work and education. What we need today is the unifier, the builder, the creator. We need an integration of social forces and of minds and institutions to get the job of dealing with rapid change done. Labor and management will have to cut down on the class struggle and start making more joint decisions. The longest and most outstanding success in labor-management collaboration are joint apprenticeship committees.

The unifier of today is education. And education must also be a leader in society. This is a new role but it is vital. Knowledge is fast gaining ascendancy and knowledge is education's business.

We can never say "this can't be done." We can't say the role of the college is not to be a community leader. We can't unify all these disparate groups, and provide social experiments.

We can't say this is Wisconsin when the entire tradition of the University of Wisconsin has been built upon leadership and social experimentation. The University's "Wisconsin Idea" proclaims: "The boundaries of the campus are the boundaries of the state."

All technologies have a role to play in higher education. Every person does not have the same aptitude. The latest high-demand occupations listed by the Department of Labor include auto mechanics, clerk-typists, insurance sales people, casework supervisors, computer programmers, electrical engineers, and guidance counselors. Most of the positions in demand today are being taught in our technical and community colleges and our vocational schools.

Universities can go several ways. They can further stress research and they can increase the strength of their graduate schools. Universities can become more elitist, or universities can become democratic and start serving all the people at the various stages of their lives.

Sabbaticals for workers could give four-year institutions a new lease on life. As human beings we all should have the right to periodic self-renewal. We should have the opportunity to go back to college to gain a second, third and even fourth new chance at life.

Making technology more appropriate, higher education should make more of an effort to help small business. Small business is in trouble. Big business is swallowing up smaller business at the rate of 2,276 firms in 1976. A little over twenty years ago only 256 firms a year were eaten up by big corporations.

If we believe that human beings are more important than machines, and that jobs are more important than technologies which put people out of work, we are going to have to put much more teaching and research efforts into expanding small enterprises that are labor-intensive--that is, which employ a lot of workers. We are going to have to teach more courses to more people on entrepreneurship and good organizational administration. We are calling this new movement "appropriate technology."

We are taking a big step toward developing more individual self-sufficiency in our career education programs. Students are teaching themselves how to fashion their lives along the lines of their interests and goals instead of having other people tell students what they shall do in life and where they shall work. We need "a technology to which everyone can gain admittance and which is not reserved for the rich and powerful."

We must prepare now for the dominance of the knowledge worker. Knowledge is unloading itself upon our heads by the tonful. We have not learned how to use much of the knowledge that exists. We remain underdeveloped in many of the practical uses of data. What good is all this information if people don't know about it? This is why communication will be in high demand for the future.

The brain is taking over even from our greatest diety - money.

We are already experiencing the Knowledge Revolution. Education as an economic force has increased at twice the rate as the economy as a whole. Human knowledge is becoming our greatest value.

We have a number of important tools we can use to plan for the betterment of people - by creating a full-employment economy, for example. Jobs for all is something worthwhile. Another important concept is that of planning. We cannot react in an age where change accelerates when we are under mountains and mountains of data. We just cannot afford to keep reacting to things. We've got to say to ourselves "we are human beings, we created this technological revolution, we can control it as well."

It all gets back to unifying ourselves. In unity there is strength and there is progress. We need imagination, we need creativity today. We need unifying--coming together of all forces--of all groups in our society, because at the present time we need to build more than anything, and we do need vision, for as the Bible says, without vision the People perish.

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PRESENTATION ON DEMOGRAPHY

By: HAZEL REINHARDT

Ms. Reinhardt received her undergraduate and graduate degrees from the University of Wisconsin - Madison.

She is the author of "Faces of the Future" along with a series of articles relating to Minnesota and midwest demographics.

Her research topics involved fertility, migration, aging, poverty and population estimates and projections.

She has the distinction of being Minnesota's first state demographer, a post she has held since 1974.

We as Americans are in an age of transformation. We have always been a very youthful society. In fact, in the 1950's and 1960's, we saw this emerging in our popular culture. In reality, we have never been a society where power rested with youth, and we should never kid ourselves about that. Many members of our society were young. If we look at our expenditures of public monies, we have spent a great deal of our money on behalf of the young people. This is true, especially in the states of Wisconsin and Minnesota, where a great deal of the public monies are spent for education.

We are in the process of becoming an older society. Selected data indicates that this transformation will make the remaining decades of this century different from the middle part of this century. I will focus on the reasons for this change, the potential impact on the labor force, where the United States stands in the world, what are some of the big occupations in the United States today, and what is happening to the mobility, the movement and location of people. The focus states of Minnesota and Wisconsin are afraid nobody loves us enough to come to this area. The truth of the matter is, we were never the Garden of Eden in the United States; it was just our perception.

Most of the slides which I have selected are based on United States data, and several were put in about Minnesota. One of the aspects of this change in our age structure will be reflected in a change in our median age, where half of the population is younger than this age, half older. In 1800, the median age in the United States was sixteen. In 1981 we expect it to be thirty years; by the year 2000, thirty-five years. There are several points I would like to make with you. On the median age of sixteen, where the United States was in 1800; this is where many of the developing countries of the world are today. The median age of thirty-five through thirty-seven is where Northern European countries, such as Sweden and Germany, are today.

In the United States the shift has been rather fast. The median age of about twenty-six, in 1970, moved up very quickly. After 1970, the population under eighteen started to decline until it was close to 40 percent. The population eighteen and over started to grow. About half of the developing countries population is under the age of sixteen. Population growth in the developing countries has slowed considerably from what had been projected.

What lies behind this transformation that is occurring? Well, declining fertility, resulting in decreasing births. Fertility is the rate at which females of child bearing years bear children. Our declining fertility actually produced a decrease in births and longivity. As Dr. Hey mentioned this morning, we do not add years at the end of our lives, we add them in between. Life expectancy has largely been the function of surviving our childhood and life expectancy has shifted a little bit in the last several years. We've gained several months life expectancy largely because more forty-five and fifty years old are surviving or not encountering heart attacks.

When we look at fertility, I think this is a way of dramatically showing change. In 1800, the fertility level was about seven. That is a fertility level similar to that which existed in the late 1960's and early 1970's in some of the developing countries. In 1940, just before World War II, it was just slightly over two; 1957, which marks the peak of what we call the "baby boom" in the United States, it was over three; and in 1976 it was about 1.7. Replacement is considered to be 2.1; that is if fertility continued at that level the population would replace itself over time and you would eventually come into a stationary stable population. We are at a rate of below replacement. However, don't confuse that with not growing. Because we had the original "baby boom", even at a low rate of fertility, we have potential growth in the United States until about 2037.

A graphic portrayal of live births in the United States from 1947 to 1977 reveals the following patterns: 1947 to 1957 was called the "baby boom"; 1957 to 1977, the "baby bust." Births were up immediately after the war. They went down a little bit and then they started a very substantial rise. What is unique about this "baby boom" is that after almost every conflict in human history there has been an increase in births. What is unique about what happened in the United States is that it lasted for so long. In Western Europe the upward surge of fertility, after the end of the Second World War, was over in two years. In the United States it lasted ten and it produced a very

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different population configuration than exists in other industrialized countries of the world. The "baby bust" is simply an indication that fertility does not move in nice smooth lines. In 1973, the rate went down quite sharply; in 1974 it was up again.

Concerning life expectancy, in 1900, life expectancy was 47.3 years; 1940 was 62.9; 1960 was 69.7; and 1976 was 73.1. Now, as we look toward the future, there is another very important thing to remember about states such as Wisconsin and Minnesota, and that is that we have a life expectancy that exceeds the national average and we also happen to be two states in which the proportion of the population over age sixty-five exceeds the national average. We already have a larger proportion of our population over sixty-five, and our track record of suviving says that we will grow ultimately faster in this area unless everyone takes off for the sunny climates.

One of the factors that has been correlated with the decline of fertility is the rise of female participation in the labor force. "Correlated" does not mean "cause and effect"; but the two are related to each other. Again we see, from 1900 on, some very interesting kinds of things. There was a definite rise during the Second World War, when we needed labor at home, and by 1976, 47 percent of all women over the age of sixteen were in the labor force, compared to about 76 percent of all men over sixteen. In some age groups this is very different; even more pronounced among females twenty to twenty-four; it is over 60 percent. It is worth noting that, as the fertility rate declines, the percentage of the female labor force participation goes up.

One of the questions we often pose for ourselves is "Well, all right, so births have been down, what about the future?" Of course the future is always open to speculation. Among demographers there is a division of opinion and many like to comment on this. More and more demographers think that fertility will remain relatively low in the United States, and one of the phenomenon of the 1970's has been the increase of never married women; both in the age groups of twenty to twenty-four, and twenty-five to thirty-four, suggesting that people are finding alternative life styles to marriage.

Of course we must consider the rise and diversification of contraceptive methods in the United States, one of the most startling being sterilization. In 1973, one in four married couples relied on sterilization; by 1977 it was one in three; very very dramatic. If I could reflect with you, in 1970-71 and 1971-72 the United States Census Bureau, in making a set of population projections, said, "If the United States reaches replacement fertility, 2.1, by 1985, that is the most optimistic picture we can think of." Almost as soon as these words were written fertility dropped and we're seeing these very permanent measures, such as male sterilization, and in the middle of the 1960's, a rise in hystorectomies that were not performed directly for the purpose of sterilization, but which registered the same effect.

What does the future look like, out to the year 2000, for the labor force? Virtually the entire labor force, between now and the end of this century, has already been born. That is one of the interesting things about population; that what happened twenty years ago you can watch its impact coming for some period of time. That is one of the reasons that population and births have such an interesting avenue of studies for education, because we know that the number of high school graduates had something to do with the number of births seventeen and one-half years ago.

The births that occurred up to 1977, projections of fertility, and some projections for legal integration are interesting to discuss. At the Series I, which is a fertility rate of 2.7, births would be dramatic. These births are based on 49 percent of the original "baby boom", which were females, so we have, in American history, the largest number of women ever in prime childbearing years, between the ages of twenty to twenty-nine. At the Series II, which is at a 2.1 fertility replacement level, there would be just slightly fewer births than occurred at the peak of the "baby boom." At the Series III, which is at a 1.7 fertility level, the birth rate would be considerably lower.

As we think of educational planning, post-secondary education in particular, basically "the die has been cast" for much of this century. We basically know what the population pools are going to be for post-secondary education. The population pools for elementary-secondary are far more open to change due to the number of births.

Of the three choices outlined, I think the births will fall somewhere between the Series II and Series III fertility rate projections. In looking at examples, Japan has averaged about 1.8 in the last twenty years, so that we know that a fully industrialized nation can average a very low fertility rate; in fact labor is of concern for the Japanese. In Western Europe, in West Germany it is just today a little bit below the 2.1 level, and in Eastern Europe, in East Germany and Czechoslovakia, it is much closer to 1.7 or below; in fact, so much so that East Germany has instituted a family policy now. They are paying people to have children. This was very successful the first year. In Rumania, there was a tremendous fear over declined fertility; the government banned birth control pills, contraceptives, and stopped abortions. Births shot up dramatically the first year and have come back down again. It is something that concerns governments on occasion.

Now let's take a look at what this does to cohorts in a study of millions of Americans in different age groups between 1960 and 1990. The five through thirteen year age group is at its lowest. In the United States we had more children enrolled in school in 1970-71 than we have ever had before and perhaps will ever again see. In the fourteen through seventeen year old group, we graduated our largest class of high school seniors in 1973-74 in the United States. We reach the lowest level around 1990. In the United States the "baby boom" reached its peak in 1957, in Minnesota in 1959, and in Wisconsin in 1960. We have these kinds of variations, and there are local variations. One of the most dramatic declines in fertility occurred in some of the large urban areas.

In the eighteen through twenty-four year old group, as an age group we see them increasing, peaking out during the 1980's, then decreasing again. We would anticipate that the eighteen through twenty-two year old group, as a classic pool for post-secondary education, will experience a decline of about 30 percent, depending on the state, between 1981 and 1991.

The twenty-five through thirty-four year old group are becoming the larger group in both number and proportion. After 1985, the thirty-five through fifty-four year old group shows some increase and the fifty-five and over age group has a large increase.

In 1970, the sixty-five and over age group was 9.7 percent of the total United States population, and about 10.7 percent in both Wisconsin and Minnesota. In both Minnesota and Wisconsin it is now about 11.4 percent of total populations, 10.7 percent for the United States, up about an entire percentage point. We anticipate that it will hover at about that proportion until the early part of the next century. Then, after about 2010 to 2015, that "baby boom" generation will be reaching the age of sixty-five, and depending on the number of children that are born, the population sixty-five and over, if fertility remains low, could reach 20 percent of the entire population in the United States by about 2000.

We, anticipate, in the remainder of this century, that the population sixty-five and over will increase by about 36 percent in the United States; the population eighty-five and over, by about 50 percent. That population eighty-five and over is overwhelmingly female. The population sixty-five and over runs 57 to 60 percent female. Because of the differential in life expectancy, the more advanced the age, the higher the proportion of women.

What does this mean in terms of education and labor force? The relationship of population to elementary-secondary education, in states where education is compulsory, and education is compulsory in 49 of 50 states, is a very clear cut one. It simply divides age groups between the public and non-public sectors. When we go into post-secondary education we have a more complex matter because there are "market forces" at work. Some studies suggest that one of the real changes that has occurred in the United States is not the proportion of high school graduates that go on to some post-secondary education, but the proportion of people who graduate from high school. In states such as Wisconsin and Minnesota we are probably at a plateau of 94 to 95 percent of all eighteen year olds graduating from high school. There is just not much of an opportunity to increase that, even though those who may not graduate may represent a special need, perhaps even a social problem. It is the proportion that go on and those who may have been out and then come back into school (that is of concern to post-secondary education.)

For the labor force, it is also an interesting question because we really have to talk again about participation by age groups. We see the growth, as we go into the 1970's and out of the 1970's and 1980's and into the 1990's, of the twenty-five through thirty-four and forty-five through fifty-four year old age groups. This provides us with some different issues, concerns and problems to solve than the ones we have traditionally faced.

This is a Minnesota statistic, but labor force participation rates are slightly higher in Minnesota than the United States average, showing 1940 through 1990 select age groups, both real and projected. Males in the twenty-five through thirty-four year old age group show a 98 percent participation in the Minnesota labor force. Males in the forty-five through sixty-four year old age group reflect a decrease because, in the past, we picked up the trend of early retirement. The question now becomes whether that will continue downward or not.

For females, we see dramatic changes. For the twenty-five through thirty-four year old group, from 1940 to 1960, there was basically a low level of employment; after 1960 the work level went up dramatically; the forty-five through sixty-four year old age group is where we had the increase in female labor force participation before 1960; today it is the young women. The American life styles, it seems to me, is one that, if a family has fielded both spouses in the labor force, it has adopted a life style that requires those two incomes. There is something else we need to pose for ourselves. Will the female labor force equal the projections, at about 75 percent?

In 1970, the labor force was not dominated by any one age group of people; some slight dominance by the twenty-five through thirty-four year old age group, but not pronounced. By 1980, the twenty-five through thirty-four year olds will numerically dominate the labor force. By 1990, the twenty-five through forty-four year olds will dominate.

Why this discussion? Let's pose for ourselves the issues that this brings out for us. If we reflect on the large groups of the 1960's, teen-agers and young adults were dominant. If we reflect on the kinds of concerns we articulated, there was tremendous concern about teen-age unemployment; I'm not suggesting we did a lot about it, but we talked a lot about it and said we were concerned. In the 1970's there was growth in the young adults, twenty-five through thirty-four year old. We are especially aware of this in post-secondary educational institutions; the question of whether people are going to find jobs. As we come into the 1980's, really, growth is pretty much over in teen-agers, or people securing their first adult job. It seems to me that this poses a different set of issues for us. One, that as Americans, culturally, we have come to expect that we are going to be promoted, that we are going to be promoted quickly, and that surely, we will not retire doing the same thing we started out doing; that we are all going to "become someone".

The issues that face both the laborers themselves, us as workers, and management I think are important. We will be going through a period of time when we are short of middle management people, to a time in which we have a tremendous surplus, and little room at the top at higher echelons of management, where "the big money is." It poses a different set of concerns. A Dean at the University of Minnesota in Continuing Education made the observation for me that when he looks at a number of students who are returning, he senses that many of them are people who feel that promotions are passing them by; that education is what they are reaching out to, in the hopes that they will be back in that promotable stream.

What I think we have to bear in mind in terms of education and the role it plays in training and retraining the labor force, is simply that it exists because we have the public money and the public will to spend it with, and we have a large "vested interest group" in the public sector that is interested in education and was able to establish that position before it had any competition from others.

We have some other rather startling statistics on the labor force that I haven't eluded to. We have been in the frame of mind of thinking about relatively high unemployment; labor force growth has been great, and really, in the United States today, we are on the verge of Labor Shortage.

In the late 1960's we had an annual average labor force increase of about 2 percent a year. This continued in the early 1970's and later 1970's. We anticipate that the annual average increase in the labor force, between 1980 and 1985, will be down to about 1.2 percent; in 1985 through 1990, about .8 percent. These are born people; it reflects the decline in fertility after 1960.

This raises an interesting issue for us. We are on the verge of a labor shortage. We have some pools, one is females, that could be drawn out; second is the retired, and third, illegal aliens. We are keeping a marginal supply of labor available on the fringe that could be called on in an emergency.

Where do we stand internationally with labor supply? We are really no different from our industrialized cousins.

That is, there is a slow population growth, we don't have a very large increase in our labor force, and we are in a world where most other developing nations have tremendous labor supplies. This reflects a shift of certain industries, world wide, from northern climates to more southern climates. In the United States there has been a number of companies that have built installations in Mexico and Central America, taking the jobs to where the labor exists, and always at the price that one would prefer. We are in this unusual kind of position that, if the jobs develop here, we are probably going to have to work at increasing labor force participation, or increasing immigration, or we will probably lose some jobs. I think we assume that American industries will continue to try to make profits.

Another very graphic indication of what is happening in the United States is the Social Security System. In 1936, there were 35 workers paying into the system for every person receiving benefits. The recent tax increase in Social Security is estimated not to bear the necessary costs. It seems to me the real question becomes "Is ten or eleven percent of one's income sufficient to pay into a society that is going to have a large number of the population?" Do we really have to pay a much larger percentage? Pension funds are going to continue to be an increasing cost of government.

A couple of other topics should be mentioned. One, the occupations that we have today. The largest single occupation group in this group was clerical workers. Also in the "white collar" area are the professional-technical, including a large portion of teachers. About one-third of our labor force hold a "blue collar" job; about 13 percent of them hold "crafts" jobs, skilled jobs; about 11 percent are "operative", primarily on assembly lines. About 14 percent of the labor force hold jobs in the service sector and the remaining large portion are in the retail trades. In the professional-technical, about 23 percent are in education. In the sales occupations, 55 percent work in retail sales. In the clerical, 28 percent of that largest category are stenographers, typists, or secretaries. In the crafts, about 30 percent are employed in construction, 26 percent are mechanics or repair persons. In the service industries, over one-third are in food service. If we look at the growth of industry in the United States in the 1970's, we have actually lost manufacturing jobs. Where have we gained our jobs? In the services and the retail trades. What grew in the services? Health care, you might say a quasi-publicly supported service. What grew in the retail sector? Eating and drinking establishments. What kind of jobs have been created? Very low skills are required; minimal skills that we doubt will be publicly supported for training.

Finally, I want to close with some data on geographic mobility. Consider the population change by state in the United States in 1970 through 1977. States which lost population are Rhode Island, New York and Pennsylvania; very slow growing, less than 5 percent includes Minnesota; over 5 percent growth includes Wisconsin, largely because it is so close to Chicago, the "spinning out" of retirement population into Wisconsin, or people seeking alternative life styles. The big action is in the West, Florida, Alaska, Hawaii, and of course, Texas and California, with very large populations, rates of growth from 8 to 15 percent. Connecticut is in this area due to favorable tax laws and it is in an amenity area where people flee from the large population centers around Boston.

Consider the migration, that phenomonon of people moving from one state to another 1970 through 1977. States from which more people left than moved to them include Rhode Island, New York, Pennsylvania, Ohio, Indiana, Illinois, and Michigan; the heavy industrial areas of the United States. Florida has the highest proportion of population sixty-five and over, over 16 percent. Wisconsin has done really better than other Mid-western states, and to the chagrin of Minnesotans, even North Dakota. In 1975, for the first time ever in American history, over half of all Americans have lived in the South or the West, and the reapportionment of the House of Representatives after the 1980 census will, without question give it more of a southern and western feeling. In a sense, the balance of power is shifting away from this major industrial belt, certainly of which Milwaukee is a part.

There is another phenomonon that is occurring in distribution of population that is also important. Not only are people moving to different states than we traditionally thought of them moving to, but they are also moving around within states in a fashion that, ten years ago, we thought was impossible. At the close of the Second World War, really from the 1940's until the late 1960's, we had a phenomonon we could best call the concentration of populations in large urban centers. "Urban" became an inadequate word and we had to call them "Metropolitan". Almost every state had one such large center. In Wisconsin, of course it is the Milwaukee-Kenosha strip with over 40 percent of the total state population. In Minnesota, it is the Twin Cities and the seven counties around the area which account for 48 percent of the state's population. Illinois has its big population center in Chicago. The population after the war continually kept concentrating in developed suburbs.

In the late 1960's and early 1970's, a new phenomonon began to occur and that is the growth of non-metropolitan areas, the growth of small towns in the open areas. It is occurring in Wisconsin and Minnesota and a number of other places. Where is this growth taking place? In places we call "amenity areas"; in the Midwest what I think that really means is some water and trees. We have this movement of people always beyond the boundaries of our metropolitan areas, even though we continually add counties to them. The upshot of this is that, instead of getting increasing density in certain locations, we are decreasing the density. This means that the delivery of services, especially certain kinds of services, are becoming increasingly difficult. Institutions that we once said didn't need dormitories may, ten years from now, need them because of population shifting.

To summarize, we are in a period of transformation change in our age structure, the implications of which are almost beyond the scope of our understanding. Profound effects upon the labor force are occurring. We are also experiencing a movement, a location of people over space, that is a little different than we traditionally think of it.

PRESENTATION ON DEMOGRAPHY

By: DR. JAMES HICKMAN

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A Fellow of the Society of Actuaries for twenty years, he has served on various committees and on the governing board of the society. His involvement with consultation and publication of articles is extensive.

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Hazel has done such a superior job of summarizing some of the great sociological and demographical trends that I think my role can best be described as that of providing some footnotes, and perhaps amplifications, on a few of the points she made. I would say, however, that I agree with her that the change in the age composition of our population; the implications of that awesome, dramatic, "Oh, but don't worry gang, that's the way the world has always been." Although I wasn't personally there, it is my understanding that Eve said to Adam as they left the garden, "But husband, we are in an age of transition."

I would like to choose as my text, the writings of

Abraham Lincoln, one of the wisest servants this Republic ever had. Lincoln once said, "If we would first know where we are, and whither we are tending, we could better judge what to do and how to do it." It is our purpose to tell you a little bit about "where we are and whither we are tending," hoping that you can tell us a little bit about what we should do.

Now, in all truth, Ms. Reinhardt and I did not have a chance to coordinate our presentation. There will, of course, be a fair amount of redundancy. I shall attempt to reduce that redundancy and simply develop those points that I think are somewhat different than the ones she developed.

Let's start out by talking about some basic demographic facts before we worry about what their implications may be. By far, the most dramatic fact in American demography is what's happened to the fertility rate. What you see here (Graph II, Births) is simply a different way of looking at what she showed you. What you see are birth rates by age of mother. The great "bulge" is the "baby boom" that she talked about. We were, by the late 1950's, in such a place that almost one out of four women, age twenty to twenty-four, was having a baby, and precipitously, we came down from that with a "permanent boom". That "bulge" is what Ms. Reinhardt talked about and what I am going to be talking about. Those are fertility rates. Remember, that is a technical term which refers to the average number of children a woman would bear who entered the childbearing ages in indicated years, if the birth rates that existed in that year prevailed. The great "bulge" peaked out in the late 1950's at about 3.7, then down--down--down, dipping below 1.8 in 1976. There is a little "blip" in 1977. It is up above 1.8 now, and for reference, the "zero population growth" is around 2.1; a fairly dramatic kind of change in the rate of reproduction in this country.

The other part of demography, one of the other parts, is not only how we get here, but how we leave. We get here the same way and we leave the same way. Ms. Reinhardt was talking about some of these numbers also. In (Chart II), we see what's happened to our life expectancy from 1900 to 1970. The top line indicates females; the bottom line indicates males. In 1900, the expectancy was about two years apart and was about fifty years. What is the big story? Not only has life expectancy increased, but the difference between men and women has increased. By the time we got to 1970 there was a difference of between five and six years. Another one of the big demographic facts of our century has been improved life expectancy. As was pointed out earlier, life expectancies have improved, primarily at young ages, and the gap between men and women has widened. If you were a geneticist, of course that question is a fascinating one and there is a very famous reply to it. "Is the mortality difference between men and women real?" And the answer is, "If you were God, what would you have done?" and "Yes, she did!" The biological role of women appears to be much more serious and they are cut out to perform it.

Here is another way to look at mortality; the "crude mortality rates," the simplist possible statistic. (Chart III) You count the number of people that die and divide by the number of people that there are. Look at what's happened to the "crude mortality rate" since the turn of the century. The enormous "blip" is due to the 1918 influenza epidemic. This country never had anything quite like it and I hope we never have it again. The more solid line is the "age adjusted line" and the less solid line is the "crude death rate." Notice the fact that the "age adjusted line" falls below the "crude death rate." It indicated, as Ms. Reinhardt said, "Ours is an aging population." To give you a point of reference, the "crude death rate" in Wisconsin, in 1975, was 8.7 and the "true death rate" for the population as a whole is hanging at about 9. Notice the other thing; that the changes in death rates since about 1955 have been modest; significant, particularly if you happen to be one of those it saved, but modest, compared to the remarkable increases made as we progressed against the infectious diseases.

Well, that's how we get here and that's how we leave. There is some recent news, most of which is pretty good. Let's talk about Wisconsin; not dramatic, but good. These are death rates per one hundred thousand population here in our state, from heart disease, in 1970 through 1975. I guess there wouldn't be dancing in the streets of a decline of about twenty-seven per one hundred thousand, but statistically, that is significant. Maybe all that anti-smoking, jogging, and stuff is beginning to pay off a bit. Strokes are down also. This is an easy one to understand. There is absolutely no doubt that the accident rates are down due to the 55 mile per hour speed limit; that is the rate which has gone down most dramatically. The old ark seems to be moving again slightly. After a relatively stable mortality rate for a while, the experience, since about 1970, seems to say that we are experiencing some significant, although small improvements. After all, we did so well between the beginning of this century and about 1955, with a mortality below sixty-five. The room for improvement is there, but it isn't all that dramatic. Those are some of the basic fact.

Let's also take a little look at what we might call some of the "social trends". The big one is the one that Ms. Reinhardt talked about very eloquently, and that is "How we have ordered our domestic lives" and "How we have ordered our labor lives." This tells you nothing more, and less graphically than her chart, the labor force participation rate of women. (Chart B) The only really significant difference is the labor force participation above age sixty-five, which has gone down over the period of time from 1940 through 1970, rather monotonically. You can say, "No surprise" that is the maturation of the Social Security System and Private Pension System. It is on the female side that things really get dramatic, because all rates are up substantially, even above sixty-five.

Besides these basic demographic trends, the "blip" in births, the general decline in mortality, with a little bit of improvement recently, another big fact has been the march of the ladies from the kitchen to the work force. Because my career has largely been concerned with cost implications of this social insurance system, I have been more interested in the labor force participation at these higher ages. Although the story here is still very much the same, on the left the boys are pretty high at ages fifty-five, fifty-eight, and sixty. You can even pick out where Social Security Benefits permitted retirement of men at age sixty-two. When you look at the girls at age fifty-five, in 1940 it was 20 percent, in 1960, 40 percent, and in 1970 it was 49 percent. Even down at the old retirement ages for women, labor force participation by women is up. One of the great trends has been the employment of women. This country crossed a "watershed" in March, 1974, and I suppose we'll never see the other side of that "watershed" again. In that month, 51 percent of the women married to men between twenty-five and sixty-four were in the labor force and it has gone up ever since. No longer can you say that the "one worker family" for married people is standard; it isn't. There are more of them with two workers, even in these ages where you would include some of them in the child bearing ages. We've crossed a "watershed" and the implications of that are the design of our home life, and the design of our social insurance, and other systems are far from complete.

There are other trends in the society besides the labor force participation of women. Ms. Reinhardt was talking about "where we live." Consider the average annual percentage changes and what has been the big story. The big story has been, of course, as she pointed out, the march to the metropolitan areas. One of the great migrations of human history has been the march from rural areas to the metropolitan areas. Between 1960 and 1970, both the whites and blacks were marching into the metropolitan areas at a pretty rapid rate. Particularly, the blacks were marching to the "central city", outside the central cities even more, and in the non-metropolitan areas, the blacks actually were moving out very rapidly. In the more recent period, 1970 through 1977, things have changed a little bit. No longer are those metropolitan areas growing quite as rapidly as they did over the longer period; less than one-half percent here in recent years; and in central cities the average annual rate has dropped to a minus one percent.

Another fact has been the amazing march from the rural areas to the metropolitan areas which hasn't stopped completely; but it has changed around quite a bit. Now, in more recent years, we are having a bit of a flight from the "central city"of an accentuating racial imbalance there, and we have had a decline in the growth of those big metropolitan areas.

What are some of the other big plights that are shaking our society? One of those, besides the change in where we live, has to do with divorce. In 1940, for every six marriages, there was one divorce. In 1975, for every two marriages, there was one divorce. No longer is the cause of family break-up primarily due to the death of the bread winner. Divorce has now become a major aspect of American society. The ratio between marriages and divorces has changed by a factor of three in the last thirty-five years.

We have talked about the labor force participation by women. Ms. Reinhardt already told you much about labor mobility and about migration. I would simply reinforce what she said about the rather unknown aspect of illegal migration. That is almost unmeasured. The Census Bureau's efforts to measure the magnitude of the number of Spanish-speaking Americans has been very frustrating. We really don't know the magnitude of that problem with any degree of precision. Finally, divorce has been shaking our society.

Let's turn to projections and what they may mean. I will attempt to stress things a bit differently than what she did. I think humility is a good human trait. It's good for me. It's good for you. Let me be humble first. In 1946, people who are trained like I am, and probably smarter, estimated that, in 1975 the population of the United States would be between 216 million and 244 million. As you recall, when Ms. Reinhardt spoke, she presented you with three projections and these correspond to the three that were made in those years. In 1975, we came in at 213 million, which wasn't even in the range of either of the other two. Of course, in that time the birth rate was beginning to build up. Then it was beginning to peak out. I don't fault the demographers of 1958 who could hardly even see the precipitous fall in the fertility rate that started the next year. Although you might fault those guys who, in 1946, as she pointed out, had anticipated perhaps a two to three year "blip" in the birth rate; but nothing like that happened.

One must be humble when we start looking into the future. Nonetheless, the rewards of looking into the future are so enormous and we are almost impelled to do a little bit of it. Let's try to lift the veil a little bit, anyway, and see what the future possibly holds. There is no new information, although I am going to draw somewhat different implications. These abbreviated diagrams are here to show you about the age distribution in the United States. (Chart-Figure I) At the turn of the century, about 52 percent of us were between the ages of twenty and sixty-four; over 40 percent more were under age twenty; and about 4 percent were above age sixty-five. The point that I want to make is that we have already lived through seventy-five years of rather dramatic change in the age composition of our population. By 1975, about 10 percent of us were above sixty-five; about 55 percent were between twenty and sixty-four; and only 35 percent were below age twenty.

Down below are two charts. (Figure I) One of them assumes a 2.3 ultimate total fertility rate. Remember that we are now down around 1.8 and that 2.1 is zero population growth. The second chart shows a 1.9 ultimate total fertility

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rate and that is what Ms. Reinhardt was thinking we might zero in on, based on experience in other countries. If we zeroed in on 2.3 fertility rates in the next fifteen years, at the year 2050, and that's about the same distance ahead at the year 1900 is behind, about 14 percent of us would be up in classical retirement ages. Remember that there are about ten percent of us now there; about a 40 percent increase. In the normal working lifetime, ages twenty through sixty-four, there would be about 56 percent, and about 30 percent would be under age twenty; that's not much different because we have 35 percent there now. At a 1.9 fertility rate, over 18 percent would be over sixty-five; about 57 percent between twenty and sixty-four; and about 25 percent under age twenty.

One of the interesting things here is that, actually, those numbers in the normal working lifetime change, but not that dramatically. But the major dependency burden changes dramatically. Instead of being at the lower end, the education, health care, playgrounds, parks end, they exchange places with old age income, health care, retirement homes, buses, and others. Of course this poses problems which are already here. A lot of your pediatrician friends are already hanging out their shingles and telling you that they are Doctors of Adolescent Medicine. They have to have somebody to treat. Who would have believed that we would be closing public schools in Madison. There were about 65,000 births in Wisconsin this year. There are also about 95,000 graduating from high school; about two-thirds of those born in relation to those graduating from high school. So the implications for education are already upon us, not somewhere in the future.

What are some of the possible implications of all of this? I guess the implications may be enormous. For example, for the current Social Security System, one would anticipate, from where we are now, about an 80 percent increase in tax rates if we maintained the same level of income and zeroed in at the 2.3 fertility level, and about 50 percent increase in tax rates if we zeroed in at the 1.9 fertility level by the year 2050.

Implications for the military are there also, because who fights wars? The young people fight wars. One of the problems of the Vietnamese War, there are lots of problems of the Vietnamese War, it was a limited war, and of course, it occurred at the time the "baby boom" boys were of military age; we couldn't use all of them. Part of the social stress of that age was the fact that, here was a war that fell on only a segment of the population. That segment is a declining segment, and if the United States continues the kind of military commitments it has overseas, does this mean a return of the draft? It may. It certainly means a lot of reorientation between the roles of the government, between the young and old.

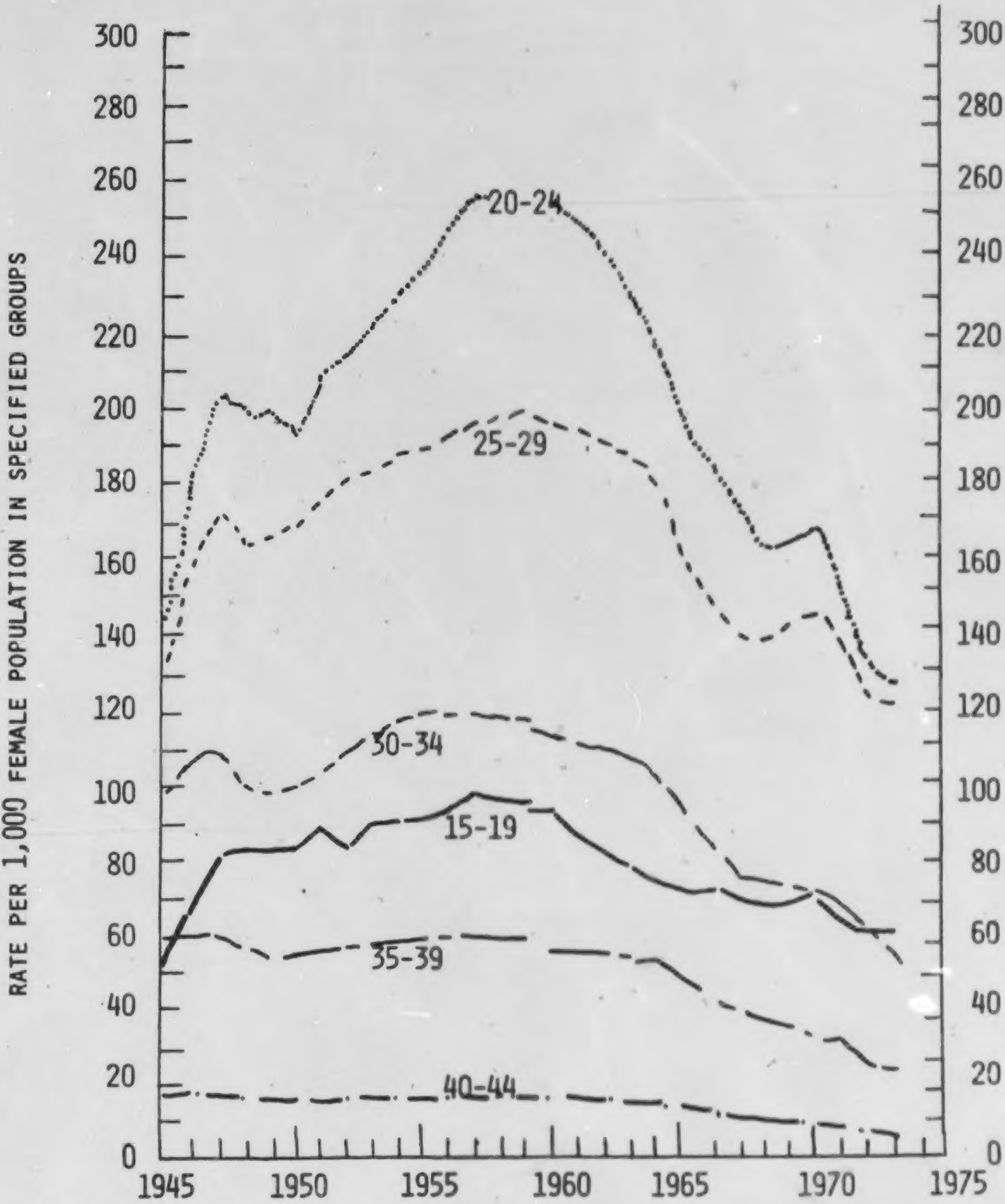
One can certainly see, since the needs of the old have tended to be met by the federal government and the needs of the young by the young, that we need some kind of reverse revenue sharing going back the other way.

Ms. Reinhardt spoke, a moment ago, about unemployment and I concur with her remarks completely. We will have employment problems, but they will be different than the ones we have right now.

These are some of the issues that you, as citizens and educational and business managers, are going to be wrestling with for the next few years. They aren't as dramatic as the OPEC Oil Embargo. It won't have that kind of overnight impact. We can manage there; but I hope you will avoid what many of my colleagues in education did, to my eternal mortification; they did their projections for several years with a ruler and when I read some of the things that, heaven forbid, I even wrote in 1968 about what I thought college enrollments would be now and in the early 1980's, it embarrasses me. If I had only gone down to the library, and it's in almost every public library, and opened up that "Big Blue Book" called Vital Statistics in the United States, I would have known I was wrong because those kids were here and all you had to do was go down and open that "Big Blue Book" and you could see it. I urge you to open the "Big Blue Book".

You will learn a lot of interesting things because our educational institutions and our industries exist to serve people. The number of them, where they live, and what they like have an awful lot to do with what we do in those institutions.

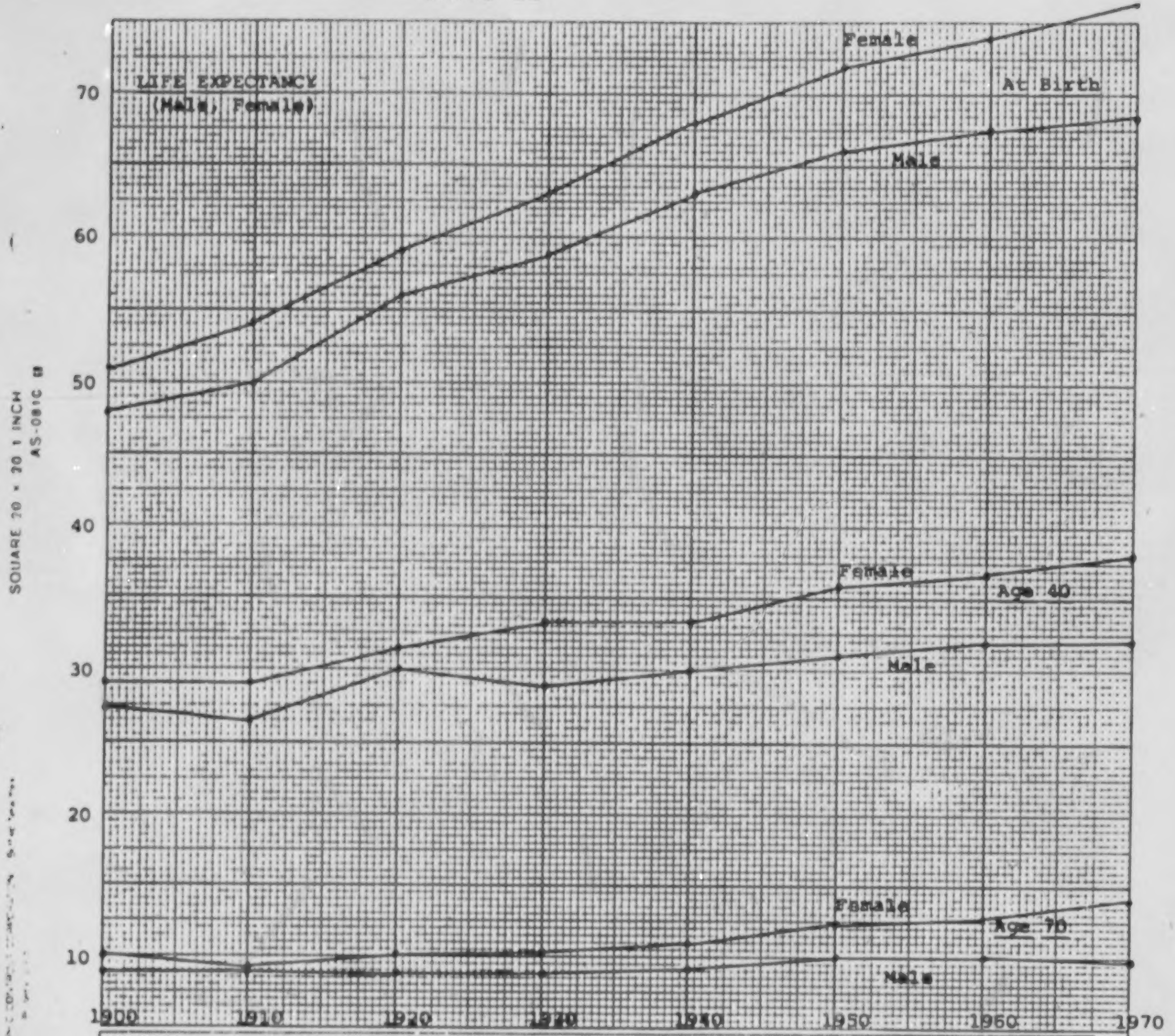
BIRTH RATES BY AGE OF MOTHER: UNITED STATES, 1945-73



(BEGINNING 1959 TREND LINES ARE BASED ON REGISTERED LIVE BIRTHS; TREND LINES FOR 1945-59 ARE BASED ON LIVE BIRTHS ADJUSTED FOR UNDERREGISTRATION.)

1976 Annual Report of Board of Trustees OASDI

CHART II



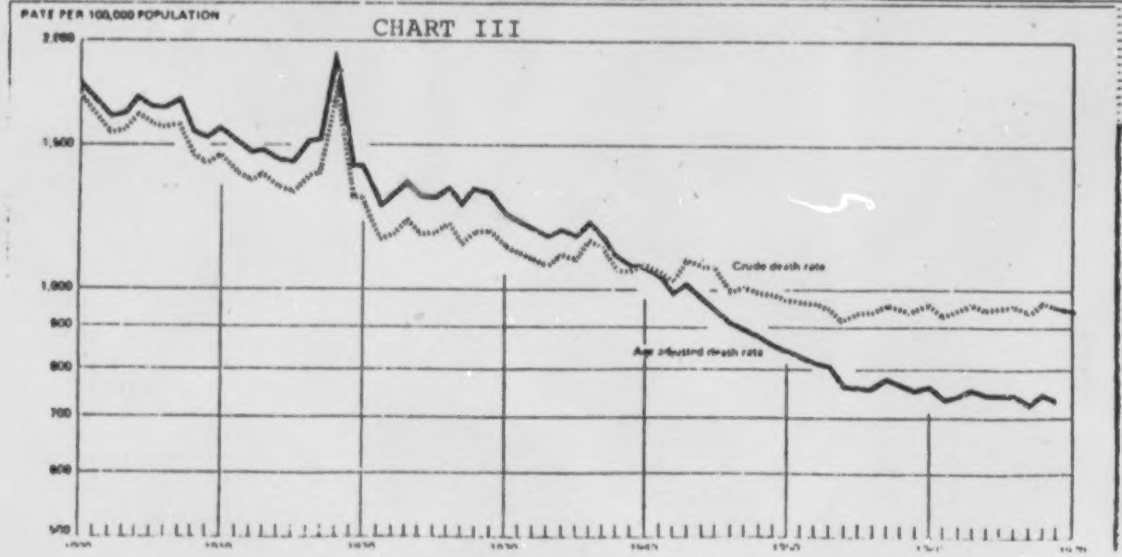


CHART III

CHART B

b. Labor Force Participation Rates for Males and Females Age 55 and Older, 1940-1970

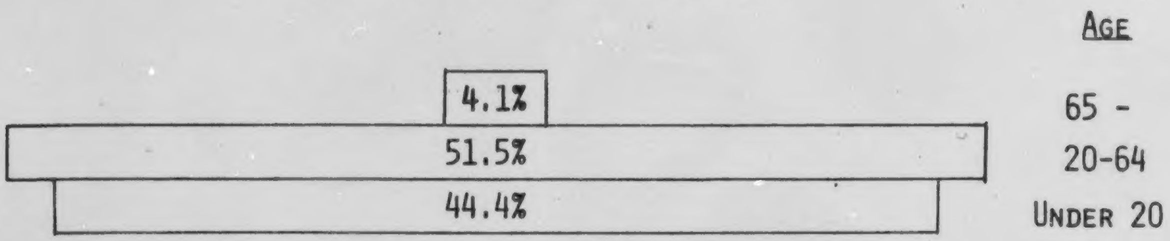
Labor Force Participation Rates

	Male				Female			
Age	1940	1950	1960	1970	1940	1950	1960	1970
56	89.1%	87.8%	89.0%	88.3%	19.2%	26.7%	40.7%	48.7%
58	86.9	86.1	86.7	85.8	17.7	24.8	38.6	46.5
60	81.9	82.1	83.2	81.3	16.8	23.1	34.7	42.9
62	79.7	80.0	78.6	72.7	14.9	20.9	29.3	35.9
64	74.4	75.2	70.0	63.1	12.4	18.0	24.3	29.3
66	62.0	62.9	45.9	41.9	9.6	13.4	17.6	18.8
68	54.9	54.2	39.5	35.4	8.2	11.4	14.6	14.7
70	44.0	44.5	33.2	26.9	6.3	8.1	11.7	11.1
72	37.4	39.0	27.8	22.1	5.2	6.0	9.0	9.1
74	31.4	30.8	25.1	17.4	3.9	5.0	7.6	7.1

Source: U.S. Bureau of the Census, *Census of Population*, PC(2)-6A, 1973, pp. 31-32

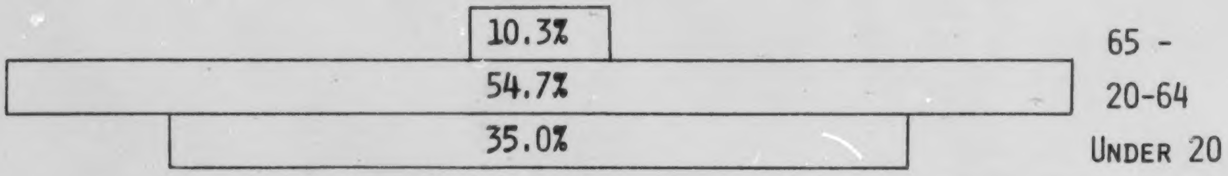
FIGURE 1

CHANGING AGE COMPOSITION OF THE UNITED STATES POPULATION, 1900-2050



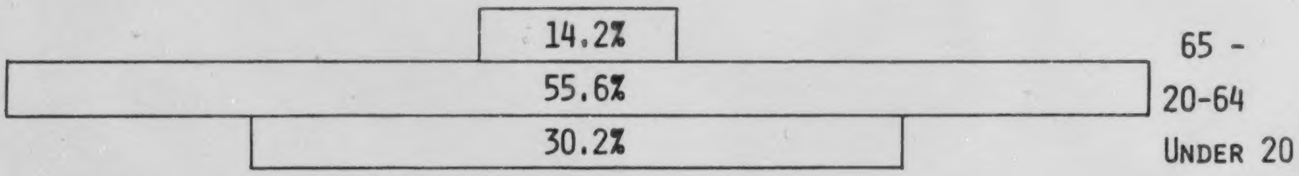
1900

Source: Bureau of Census, Historical Statistics of the United States

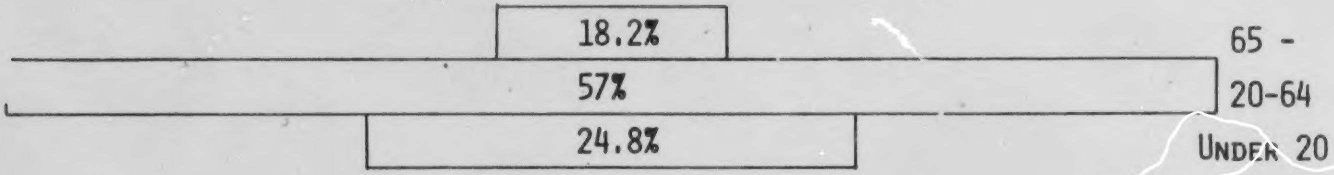


1975

Source: 1975 Annual Report of Board of Trustees OASDI



2050 - 2.3 ULTIMATE TOTAL FERTILITY



2050 - 1.9 ULTIMATE TOTAL FERTILITY

Source: 1976 Annual Report of Board of Trustees OASDI

Reaction Groups —

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Mr. Glenn Bozon, Reactor

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Dr. Lee Smalley, Reactor

SUMMARIZATION OF DISCUSSION GROUP A

Presented by: DR. ALAN GUSKIN
MR. GLENN BOZON

DR. GUSKIN:

I think we are affected by the speakers present in our group, and at one point we had Hazel Reinhardt, so there was some discussion on populations and fertility. She talked about the fact that fertility was non-uniform throughout the population. We didn't talk very much about the minority population versus the white population. She did say something which I must admit was the first time I have heard it; that black women tend to bear more children than whites. The actual population, in the last ten years, has been evening out the black and white population, which is contrary to what most people come to believe. There was a discussion about whether or not minorities and people on Aid to Dependant Children and Welfare are interested in work or not. It was said that there were not as many minorities being created in the society, at least within the past ten years, and some discussion as to social class or education tend to have fewer children, this being a much stronger variable than whether somebody is a minority or not. There was a general discussion that bearing children and working is not incompatible for all jobs, but is incompatible for some jobs. Hazel Reinhardt stated that basically, there

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are some competitive jobs which would be difficult to maintain while bearing a good number of children. People, of course, are looking more toward some kind of child care, as a result of the working population.

The second issue discussed was the need for more generalized education rather than specific skill education. The business people were concerned about the lack of skills of the graduates they were receiving from the vocational institutes. They seemed to feel that managerial skills, personal skills, writing skills, problem solving skills and communication skills were very important things that people should learn about; not just specific training for a job. One business leader said that he guessed units of the industry would have to do more specific training than they have been doing in the past few years. Somebody mentioned that two billion dollars a year is being spent by industries on education. There was a general feeling that in the future, those of us in education should take more seriously the general education functions and work closer with industry in this need to help them to do the training, specific training, on the job. There were a number of discussions on the need for life long learning. There was also a feeling that education should take place about the market and in the work place, not just in the four walls of the universities and vocational schools.

There was some discussion about the fact that there is a social class base underlying the type of education chosen by students. Whether they go into the armed forces, education, vocational schools, or into universities, there is also a feeling that there is a lack of proper education about potential careers. One of the business leaders felt that counseling in high schools is abominable. There were some feelings that maybe there was a need for more counseling in the universities and technical institutes, in terms of future careers. There was a discussion about the inefficiencies that exist, presently, within and between the vocational schools and the universities, in terms of future careers.

MR. BOZON:

We still have a definite need for what was termed "people skills". It was stated in our discussion group that we need to teach "people skills" in higher education, for this is the challenge of management. Also along those lines, there was an expressed emphasis on the need for better communication skills on the part of our graduates.

The comment was made that the individual at the elementary level of education may learn how to operate a calculator or computer, but once they get to the collegiate level they have to learn how to read and write English.

One of the other areas discussed, and I think it has been presented, is that we are not presenting solutions today, but rather problems or challenges that we need to face as educators and representatives from business and industry. Another one of these challenges is in the area that we call "lag time". We need more specific identification of the labor market needs from the students' graduation date on, rather than information strictly based on present needs. That possibly, too often, we determine educational program establishment by present needs rather than forecasted needs. Education must be flexible enough to react to changing needs.

An interesting question or issue that came up was how do we get people beyond the psychological aspects or psychological barriers of going back to school? We need to address ourselves to this as a challenge. Another part of this question might be looked at more from an industrial standpoint. Are there adequate incentives to provide a basis for continuing education? Are we as business people providing to our employees enough of an incentive so that they are truly willing to return to a classroom situation, or to a learning experience, wherever they might be.

I want to emphasize again the need expressed by our group for individuals, employers, and educators getting together more often. We need to get people in an "up-dating habit"; second, we need to keep people involved in education; and third, we need to bring education to the people; by this I am implying, of course, that we bring education to the job. The point was very strongly made in our group that we do indeed have the mechanism; the question is "Are we using it efficiently and effectively in carrying out our appropriate missions as educational institutions?"

Another need that our group expressed was the need for competent individuals to counsel students in career planning and development. We need ways of getting new information out to the people. As a supplement to our discussion I brought something today to share with you. I have been working in the state of Illinois for the last three years, and came upon material that had been developed cooperatively through industry and higher education (higher education including both the baccalaureate programs, and the Vocational, Technical, and Adult Education programs). There is a tremendous amount of material that is available today in the way of information delivery as it relates to career objectives in planning for the future. You may want to take a look at this material some time this morning. It is a compiled set of manuals that deal specifically with career assistance and placement services. The first manual, "A Curriculum Guide for Pre-Employment Skills," is directed toward the student seeking employment. It covers all aspects of how to go about receiving more information about jobs, sources of employment, data sheets, resumes, initial contact with the employer, the application form, job advancement, termination, and rejection shock. (Appendix C, Exhibit 1). The second manual, "Resource Manual-Career Assistance and Placement Service," is supportive from the couselor's standpoint as to how we, in a position of responsibility for counseling and guiding the student, can assist. (Appendix C, Exhibit 2). This material is set up in a systematic way and includes a series of program models. Mr. Steve Pollack, who was the director of this project, was very careful to point out that none of this material is copyrighted and can be requested for your consideration. His hope was that the information would be used. The manuals were developed through federal and state grants. See attached copies.

One of the other items that came up, that I would like to draw your attention to, is the question, "What are the qualifications that business and industry is requiring of our students going into the labor market?" What are those qualifications? Are we, in fact, being as accurate as we can be? Are we, too often, using the excuse for rejection of the applicant, "You weren't qualified enough"? This can cause the individual to experience a shock after they have been notified. "What does that mean? Am I not qualified? What does this mean to me as an individual? Do I have to go back and change my occupational goals?" We might question this approach and try to be a little more specific in terms of what our needs truly are, as we are projecting these to the student and to the educational faculty members, so that we, in turn, can use this information more effectively.

We've been talking about change. Probably one of the first areas we need to get into is this thing of education for specialists versus generalists. We don't like change, but truly, we, as educators, may have to face this question along with assistance from industry. Are we, in fact, providing too general an educational foundation? Is there a need for us to change, possibly at the baccalaureate level with greater areas of concentration? I'm not necessarily saying we should, but it was an issue that was expressed. On the other hand, are we too specialized in the areas of vocational, technical, and adult education, in terms of dealing with job entry aspects, but possibly not providing enough education dealing with the total life of the student? I think that a significant question was raised in our group in terms of the baccalaureate and graduate placements. We

(University programs) are placing people in "occupational areas", and our role is not really specific "job entry". It is, rather, that of providing a long-term successful experience. Thus, we should use long-term measurements as we are considering measuring success. Are we looking for the answers too soon?

We raised these points as issues, as questions, as items, and I don't think that our discussion group came up with many solutions as such. The one base-line conclusion that we can make is that we as educators, both in the fields of vocational, technical, and adult education, and in higher education at the university and college level, need to get together constantly with our counter-parts in business and industry so that we can share information. Without information, we cannot make good decisions.

I think that's about all that I want to share. I may have shared more than I should have from our group, but I think that what was presented was truly representative of our group discussion. There are many concerns, but we do have the mechanisms to meet the challenges. It's up to us to carry them out. Thank you.

SUMMARIZATION OF DISCUSSION OF GROUP B

LEADER: EUGENE LEHRMANN

REACTOR: MERLE W. BODINE

Group members emphasized in the beginning that they were somewhat overwhelmed by the macro-characteristics of the problem, i.e., so much territory had been covered in the morning. Business and industrial representatives came to the conference for specifics, i.e. what do we do? How do we deal with this problem? Before the afternoon was over, however, they had taken the issue apart and treated its various elements very specifically and with considerable sensitivity.

The lag time between the concept of a new machine or a new idea or a new process and its implementation is approaching zero. The concept of the transistor, for example, took ten years to implement. Concepts are now being implemented in less than two years. These facts of life in the world of work complicate the needs of a changing work force and hold very important implications for higher education.

A point was made that engineers lack sophistication in some cases in dealing with finite element analysis. Machines have been developed that have to be completely "re-developed" at considerable expense in both time and money. Business and industry is concerned about the mix of "who benefits and who pays" insofar as that mix is concerned with the middle-aged "career changers." What will be the mix between the worker, the profession, business and industry, and the public in providing resources for handling the expenses involved in career changing? For example, in the University Wisconsin System, the public pays seventy-five percent of the cost for a young person preparing for career entry. But, what about the one who is returning for a new career change during the middle years of life? Under the present extension system, for example, students pay their own fees which supports the extended educational service. Business and industrial representatives are concerned with this arrangement. Should it be re-examined? It was brought out loud and clear that the private sector will find a way to market training and probably make a reasonable profit on the commodity if the public sector does not gear up for reality. This is a point that educators should keep in focus; that unless we can provide the appropriate training -- someone else will,and at a profit.

What are the implications for the front-line supervisor in making the job more satisfying? On the subject of lifestyles, the business and industrial representatives were keenly aware that promotions mean less to the employee today. In "two-breadwinner" situations, families are applying some very definite criteria in dealing with promotions leading to a move to another part of the country. And, they are more apt in today's world to reject promotions based on how much a promotion means in regard to both of their work situations. How is this going to affect today's youth who will be entering the work force 15 to 20 years from now? This may be an entirely new challenge to educators. But, if we are becoming less mobile due to these factors, perhaps the school will become closer to the center of life and work. Perhaps people will depend upon the school, the university, and the vocational system for continuing support at a place of residence that will be more permanent. If this is true, then the real challenge of keeping up, keeping in touch, keeping in much closer contact with the community and where it is going is the challenge to the public educational system including the university and the vocational districts.

Industry stresses a definite need for an education that prepares its people for "how to change." The coping with and implementing of change is the bottom line.

As pointed out in the beginning, our technology is approaching a lag time of zero. The need to prepare students in "how to research", where to look for answers and what to look for was never greater. Business and industry wants problem solvers! First, someone who can take care of himself or herself. This applies across the board. There is more emphasis on responsibility of our schools to teach citizenship, free enterprise, the political system, capitalism, good health and exercise. Teaching students not only to read, but how to enjoy reading and sports so that television can be minimized and constructive activities pursued. There needs to be an awareness of local surroundings and this will cause an awareness of what business and industry is all about.

There was general consensus in the group that our schools teach too many idealistic ideas and not enough realistic concepts. Students become disillusioned and, therefore, disappointed when they have to accumulate smaller tasks before being assigned a higher position. Students are as impatient as society is impatient.

SUMMARIZATION OF DISCUSSION GROUP C

LEADER: MR. HAROLD SAHAKIAN

REACTOR: DR. RICHARD ANDERSON

We'll have the usual cop-out as each presentor comes up by saying that previous speakers said half of what we were going to say, therefore, the reports are getting smaller and smaller. However, that is true. Many of the things that were discussed by the previous group were discussed by our group.

We tried to zero in on specific objectives and obtain industry's reaction to the future labor markets. We were somewhat hampered because we only had two industrial representatives in our group. However, they were very direct, aggressive, and outspoken, and provided us with some points of view that were a little bit different than I think many of the educators in our group had looked at, in a particular framework.

One of the major premise results of the outcome of our discussion was the whole concept of retraining people, that it has to be planned for. If you use the analogy, that most organizations view the obsolescence of their equipment as a necessary expense to run the company, and that most equipment nowadays doesn't wear out, it becomes technologically obsolete. And most of us, including educators I think, don't think of people in that same framework. I think we all recognize that people need to be retrained and that there's this big technological change occurring, but we don't put it in the same framework as-- We know that a piece of equipment is going to wear out technologically and, therefore, must be replaced. We don't think of it in that same degree of priority with people. We know that people are going to become technologically obsolete. Therefore, it is a company expense that must be incurred in order to make sure that you stay competitive.

The other point of view that I know I personally hadn't even thought of at all; we spent a great deal of time listening to our speakers yesterday talk about the effects of the population changes. One of our representatives said, "Hey fellas, there's little correlation of the baby boom to our industry. It makes no difference because our industry operates on discretionary dollars. More important to us is, What's happening in the economy rather than what's happening with people?" His analogy was that if a family has ten dollars available to spend, it doesn't make any difference if they have one child or two children; they're only going to spend ten dollars. So, we look at it differently, that particular industry. It was another different point of view and I hadn't looked at it that way.

We did have some very concrete examples on how technology is changing the operation of this particular industry, which was very clear and concise on how technology is making a change with examples, like ten technicians have taken the place of a hundred craftsmen. We all think of basic craftsmen as being something that's going to be there forever in that we're having new occupations, but the craftsmen, per se, aren't being replaced. Well, this is a very concrete example on how that is actually happening.

The industrial representatives were also very concerned to make sure that we educators well recognized that the number of employees will be reduced in many industries, that volume of production and sales will be increased, that industry is doing all it can to eliminate the need for people to produce and sell their products, and as they do that, obviously, it has an impact on that labor market and it has an impact on what we do as educators.

We tried to zero in on, specifically, what vocational-technical education can do for industry and what university systems can do for industry. Most of the conversation was pretty basic, as in Merle's presentation. However, we did have our 3M representative again try and put things in better perspective for us, and he said that they look at jobs in two ways. Very specifically, which jobs are trainable jobs; that is, which ones can they themselves do on the job, regardless of the level of what that job is; the other one is which ones are skilled jobs that do require prior training. Again, it makes no difference what the level of that job is. I think most educators have looked at it and said, "We have semiskilled adn non-skilled jobs and industry can take care of that and everything else we should be doing one way or another." His conversation caused me to be thinking a little bit differently on-- particularly vocational-technical's responsibilities-- on all levels of the job, what can we do? Most of us, particularly in the vocational-technical and the university system, staking our turf for responsibilities, have been saying, "Well, the policy-related, the research-based, and the managerial theory is the realm of the university, and the practical and the skilled jobs are the realm of the vocational-technical." But the conversations with these industrialists yesterday caused me to be thinking, rather than in terms of jobs, more in terms of skills and concepts necessary to do a particular job. This is going to give both systems even more headaches in staking out turf because it was kind of convenient to stake out that turf on the basis of a job, but now we try and look at it, not only within that job-- not on jobs-- but within jobs. Whose role and responsibility is it to provide certain types of educational training is going to make it even more difficult, but something that has to be faced.

We had the usual concern that the new employee must be as productive as quickly as possible and it made no difference as to whether it was an unskilled position or a very highly-technical or professional position. I think the concern by both of the industrial representatives was that it made no difference whether the person was coming out of a vocational-technical school or coming out of the university, that they have to be productive as quickly as possible. The days are long gone, whether it's an engineer or whether it's a production worker, when industries can afford to spend a lot of time learning on the job. They have to be able to come in and be productive very, very quickly.

We tried to zero in on types of skills that the industrial representatives felt were lacking in their new employees, regardless of level. One of them was the whole concept of quality assurance, and what is the vocational-technical system, what is the university system doing for any type of job in insuring that the new employee has a concept of quality assurance and understands what the impact of quality assurance has upon the firm, the product, and their job. Again, this is something that was identified that can be handled by all educational systems.

Two other areas that probably fall in the supervisory/ management aspect, but really run across the whole spectrum, was the ability to direct and inspire. We spent a great deal of time talking about the whole concept of human relations and communications, and whether or not one can be taught to direct and inspire, whether or not it is a God-given charismic ability that a person has or whether it can actually be developed. It is my own personal opinion that there are different skills required and that can be-- a great deal of what is necessary to be able to direct and inspire-- can be taught. But, it has to be provided-- the experiences have to be provided where a student has an opportunity to practice those skills and that's probably the biggest thing we have missing at any level of education. Within the educational setting a student doesn't have the opportunity to practice, to learn those skills and to see whether or not they are successful in them.

Then, the last issue we talked about, the question was thrown out to our two industrialists as to what is the biggest problem that you have in operating your business? Both of the people agreed that the biggest problem really was different than, I think, the educators in the room were expecting to hear. They said that their biggest problem was distribution and transportation of the product. We hadn't looked at it in those terms. Our previous conversation didn't give any hint that that's what their answer would be, distribution and transportation. We talked at great length and detail as to what do you mean by distribution and what do you mean by transportation; what are the follow-ups? Again, we came back to the old cliche that said, "Price, quality, and delivery is what makes a company successful." You can do all the other great and wonderful things, but if you can't deliver it on time, and in a fashion where the product is still sellable, your company is not going to be successful.

In trying to recap what our group discussed, I would say that the basic concept was that education, as well as industry, has to recognize the continuing need for retraining of their employees on a mandatory basis, just as they consider the replacement of their equipment on a mandatory basis, not waiting until it wears out, but until it's technologically obsolete. Also, the whole concept of what skills are most necessary was discussed. It really broke down to the inability to direct and inspire human relations in communications, and not necessarily-- emphatically, not from the academic standpoint, that they have to be able to react to fellow workers, to be able to react to superiors in the organization in a very positive sense, and it's something that industry can't expect the student to learn over years on the job. It has to be a skill that they're coming in with at whatever level they are in the hierarchy of the organization. The conclusion I personally came to was that, in education we're not doing a very good job allowing students to practice those skills so that they have the necessary proficiency when they come on the job. We've sort of said, "These are the basic things you ought to be aware of and good luck Joe or Sally, and we hope you are successful on the job." We've got to provide students with that opportunity to develop those skills. Those skills are just as important as the "technology skills" at whatever level the job may be.

So, that was the essence of what we talked about, in addition to the wonderful things that your group talked about.

SUMMARIZATION OF DISCUSSION GROUP D

GROUP LEADER: DR. ROBERT S. SWANSON

REACTOR: DR. LEE SMALLEY

I briefly looked at the transcript this morning, so if you want another version of what happened, you can read the transcript. This is my version. This is going to be a short report because I will report only those things that had something to do with the theme of the conference.

The rules for this report are the same rules as for eating an elephant. There are three rules for eating an elephant: (1) You have to start biting somewhere. (2) It doesn't make much difference where you start biting. (3) After you bite a lot, most of the elephant still remains. So I'll go by those three rules in this report.

There first was a call for some questions; some of the questions to which we should be addressing ourselves as we look at this theme. Some of the questions had to do with a shifting from a "me" to a "you" orientation in industry, identifying needs through marketing. My question then was, does this represent a more hedonistic shift for maximizing profit and less risk taking by industry, or does this mean that we need more people in marketing rationale than what we had produced before?

Another statement of concern was, "It is difficult to translate political and citizen concerns and values to specific products and occupations." So what do we do with the oil embargo, and what do we do with environmental concerns? What do we do with the resource management? How do these concerns get translated into jobs?

Another question was, "Where are the good available people, not only the professional people, but the skilled and the technician at any level?" There always seems to be a shortage of quality people as you go to hire. What is industry willing to train for, as opposed to what are they willing to buy from schools in terms of skills. As an example, we talked about the familiarities with computers. For instance, what can the people do themselves as opposed to what do they have to have before they come on the job? How do we get visibility in schools for new occupations? Do new and emerging careers evolve slowly enough for industry to retrain their own new people from the existent labor force?

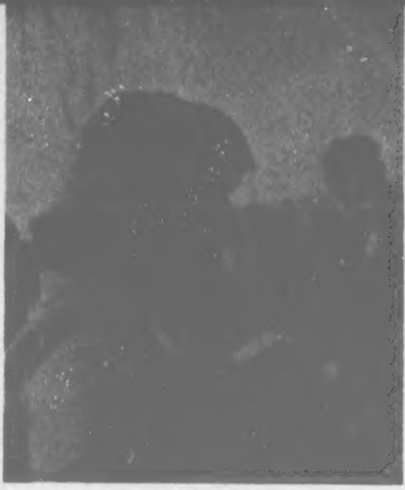
Then, "What if decentralization replaces centralization?" The going from movies to T.V., from nuclear to solar, the whole concept of intermediate technology. I guess I find that a very fascinating one to speculate. We seem to have been centralizing for thousands of years. What if it comes to a point where things begin to disintegrate, and we work the other direction toward decentralization? What impact is that going to have on the jobs that people have because we have been committed, almost automatically, to more specialization. It may be that we have reached a zenith on that, and if we have, what does that mean?

Then we tried to identify some trends: Fluid power, for instance, replacing chain and cable in the construction industry; computers replacing clerical operations, industrial marketing spinning off and being different from consumer marketing; and certainly, increased regulations. OSHA is an example of a trend where the increased regulations required more time and so more people.

We looked at the long-term trend of our society going from agriculture to manufacturing to service to-- Then we ran out of time, I guess, but the predominately service oriented occupation group that we now have is probably not the answer, any more than agriculture was the answer, or manufacturing was the answer, and it, too, will probably become more productive, and its percentage of the work force will dwindle. Then what comes in to take up that slack? Some suggestions were the great 'leisure society.'

Then there is the increased expectations of services, in terms of a trend. Adam Clayton Powell, if you remember when he was a congressman a few years ago, went on a talk show and was reminded that he took Miss Ohio down to the Bimini Islands, and that he liked a certain expensive Scotch and Havana cigars. He just shrugged his shoulders and said, "These are just the creature comforts of life." I think Adam Clayton Powell taught a number of people some things about the 'creature comforts of life.' What does this mean then? How does this translate into new and emerging occupations?

As I said, if you want anything else, you will have to ask the chairman or read the transcript.



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SUMMATION REACTION BY PRESENTORS

Participants: JAMES C. HICKMAN, RICHARD HEY, WILLIAM ABBOTT
Moderator: DONALD S. GALBRAITH

MR. GALBRAITH: We shall now have a panel discussion among our three resource people. Our three panelists will be recapping the conference in whole, based on the input each of them has given, and based on the inputs they have received from the reporters of various groups.

MR. ABBOTT: To lead off, one remark that particularly struck me is, "Where are we going in all of this? Are we going to a 'leisure society'. Are we going to have to find some substitutes for work?" I see conflicting data in regard to the 'leisure society'. I remember reading an article in Monthly Labor Review that the Japanese, for example, are moving from a very work-oriented type personality, and the young people are now quite leisure oriented, according to a study made for the government of Japan. It seems a trend also in the United States and all industrialized countries. So are we going toward the leisure society? Is this going to become a proper family value? We have heard reference to it in this conference. As a matter of fact, a number of colleges and universities offer credit courses in the creative use of leisure time.

DR. HEY: I also think we are moving into a 'leisure society'. We think in terms of holidays, and we think in terms of shorter holiday weekends away from work. It seems to me we find among workers at all levels some indications that there is less total identification with work and more identification in terms of other activities. I think we haven't had enough imagination to say what is the answer to a shorter work week. When you replace ten persons with one technician, you have ten persons who are no longer practicing their craft. They are also having to think of other ways to use their time.

MR. ABBOTT: The average American person wants to work, probably needs to work. Is there a human need to work? Is that the meaning of life?

DR. HEY: This is a philosophical question. I don't really think people need to work. I think people need to have meaning in their lives. We say meaning comes from work because you get rewards from society. Now, we are going to have to redefine what meaningful activity is. There are persons who get their greatest meaning from their hobbies and work in order to support it. These persons say that they do their work competently, but the meaning comes from somewhere else. It seems to me that persons in our society want to bring these two things more into play.

MR. HICKMAN: I would like to insert what I hope is a historical perspective on this. Go back seventy-five years to the turn of the century. We are talking about steel workers working sixty hours a week. The change from 1900 to now has been enormous. I am convinced we will have changes in the future, but not as much percentage change as we have experienced in the last seventy-five years. We should ask ourselves how well have we done? The liberal reformers of the early part of the century expected a flowering of culture with the attainment of the 40-hour work week. That flowering never really took place.

MR. GALBRAITH: A concurrent thread in all four groups was human relations and communication, or interpersonal relationships. Is it inherent in the individual? Where is it developed?

MR. ABBOTT: We have feelings of powerlessness, and I see searching on the part of all of us. How can we grab hold of our lives and direct our lives? Career education is part of this general movement of controlling our own lives.

MR. GALBRAITH: They have said to us in all four groups that a man who is a producer is completely uneducated in directing the efforts of others. He is inarticulate in interpersonal relationships. How do we develop the ability of an individual to express himself?

MR. HICKMAN: I would like to divide my response to your question into two parts. First is the topic of technique, and the second concerns whether there is a genuine feeling of concern for others. As far as technique goes, there are important basic skills of communications that can help a person convey ideas and direct other people. It is true that we are probably doing a poorer job today of educating for effective communication than some years ago. Part of the reason for this poor performance is economic. In industry you can improve productivity by replacing several men with one machine. In education we can improve our productivity by increasing our class size or, sometimes, by replacing a person with a machine. Because communications is a human thing it is difficult to automate education for communications. If someone is to learn to speak, a teacher has to listen and tell the student where he went wrong. If someone is to learn to write, a teacher has to read and tell the student how he can do better. The acts of listening and reading are long and time consuming, and that means expensive. There is also a non-educable part to this problem and that is, if you are going to convey to people that you are concerned about them, you have to be concerned. No matter how good you are at a technique, if you really don't care, they will know it someday.

INDUSTRY: What industry needs is more generally skilled students in terms of these basic skills you are talking about. This is a time when the taxpayers want to cut back on the allocation to public universities at the same time that what they need most is smaller group interaction, which is expensive.

Part of the interaction between universities and industries has to be for industry to state a little more clearly these generalized needs. If they take too seriously the vocational end of it, preparing somebody for his first job, they are hurting themselves five or ten years down the road, and in effect hurting society at the same time. It's a series of ironies building at this moment in time.

INDUSTRY: I think industry has been deceived that our employees are given to us without having those general skills. The fundamental skills of reading, writing, and communication that used to be important in our educational system, disappeared over the last fifteen years. We can teach people how to run machines and computers, but the ability to read and write appears not to be a priority anymore.

DR. HEY: It seems to me that an important question is, how you measure productivity in business and education? It doesn't seem to hold that my productivity goes up because I have 200 in classroom. You can't teach people how to relate better in a classroom of 300. Education has a different kind of productivity, and that has to be clarified.

MR. ABBOTT: Isn't this why business and industry are running behavioral-type courses for their employees? The remark was made by one of the groups that if formal education doesn't do it, then there are going to be private organizations that will do it. I would like to ask some of the employer representatives: Don't you include interpersonal skills as part of your training?

INDUSTRY: We have to because of the attitudes of many of the students coming out of school. There is quite a difference in the freedom and independence of an academic life compared to a big corporation. The corporation is not a democracy; it is a bureaucratic institution. Those of us who run it have a problem relating to kids that come out of school today. Their first attitude is to tell us we don't know what we are doing, or that they don't really have to follow the discipline of a corporation. Discipline of a corporation is very tough. Many of them don't survive because they don't know that. It is a shock they are not prepared for. We have to give new employees a lot of help on how to handle oneself in the corporation. Behavioral development is really retraining someone to fit into an organization that is military in its structure. It is not a free society.

EDUCATION: I don't know where you get the idea they come out of a democratic institution because the university certainly isn't a democratic institution.

INDUSTRY: It has far more capability of challenging you in a class.

INDUSTRY: I have two comments to make, one relative to productivity, and I think it would be true to education as well as to industry. It is one thing to mass produce or raise the productivity level, but unless the quality of what you are doing is there nobody is going to buy your product. With your production aspect you have to have a quality aspect. In terms of education, we do spend a lot of time training and retraining a lot of people in terms of communication and attitude skills, verbal communications, motivations, along with a lot of technical things. It is being done. What I am concerned with is the business that is not Parkside's, or the business people who don't have inside training capabilities. They are caught between the rock and the hard spot. They have got to get this kind of a person someplace, or get somebody that they now have that they like retrained. That poses a problem. Don't ever let quality go because you want to highly produce.

INDUSTRY: The question was asked: Where does a smaller organization get these people? I take them where I can get them. Some from the big people after they are trained for six years.

EDUCATION: I would like to go back and challenge the concept of the generalist. I think they were talking in terms of very specific skills--those skills which may be normally considered academic skills. They weren't in the context of generalist as an academician would think of generalist.

MR. HICKMAN: Several of the problems articulated yesterday in both demography and technology left you with the impression that as a society--not just as corporation managers or educators--we have a lot of problems. For example, I was talking about problems with old age income systems and about the trade-offs between the environment and economic growth. The framework within which we will work out solutions to these issues will be the political system. Therefore, I want to say a word for the generalist because I think Jefferson was right; "You can't run a democracy with people who can't read or write," and in this day and age, even understand a fair bit of science. In addition to the problem of supplying the manpower needed to make the economy work, if we are to make democracy work, we have to have people that can understand the trade-offs in some of these issues. General education, and I do not mean soft education, I mean hard education, is necessary. For example, I think most people ought to know calculus because you can't know science without it, and I don't think you can be an effective citizen in the last quarter or the 20th Century without knowing a fair amount of science. We need general education, not only to fuel the economy, but to make democracy work. Without general education erratic flip-flops that may take place are going to be very destructive to both the economy and society. I would support general education, not only from the viewpoint of communications and technical skills in a corporation; I would support it as being essential to democracy.

EDUCATION: What do we do to function in society as citizens? We have to make political and social decisions--everybody who works, every adult has to do this. How do we bring things back into line? To me, this is a key issue facing our society.

INDUSTRY: I'd like to go back into the area of interpersonal skills because I still believe that's really the fundamental problem--getting people to be productive. Someone made the comment about respect from the person we serve in society. Are we gaining or losing that respect?

DR. HEY: I'd like to make two comments. One, I think concern for others can be taught. I think there are techniques to teach persons an awareness of how interconnected we are. It's not the usual classroom procedure, you have to use some different techniques. We're at a stage now in which the respect for others is at a low ebb. There's a strong push toward "do your own thing." It's showing up in a rather strange way; that is, take responsibility for yourself. That's been translated into "say what you want to say, do what you want to do," without concern for the other person. This is what I see on the campus, in the community, and in my continuing education and extension work. I checked this with other persons and it seems to be widespread. We're going to assert ourselves. I'm going to say who I am and speak my piece because no longer is anyone going to step on me, and to hell with the rest of them.

EDUCATION: Isn't that a by-product of extended adolescence? That's a child speaking. Now, I hope that by the time they are thirty-seven they will come out of it and become adults. I think this is one of the things that we in education haven't always recognized, and that's the extension of adolescence.

DR. HEY: I think it's been a problem for many persons for many years. I think it's become more blatant, but we have too many sixty-year-old adolescents. In terms of stages of moral development, that's stage two; that is, "I'll scratch your back if you scratch my back." That's the exchange theory, which probably at the present time is getting the greatest play among researchers who are applying it to marriage and the family. They're applying it to industrial relationships, and they're applying it to employer-worker, as well as to peer relationships in other areas. I don't think it can be said that's adolescent. I think that's pretty deeply ingrained in our society.

EDUCATION: I'd like to raise another specific question, but in order to do that I'm going to try to summarize the things I've learned in these two days. I see some variations from business and industry as to what is needed by employees. I think that varies according to the size and according to whether you're talking about managers or assembly-line workers. I see some variation suggested between what an employee might want as far as ongoing education and what an employer might want for the employee. I see some variation in what a university might consider educating a person and what an employer might be looking for in a trained person for a particular job. I think there are some conflicts there. How can networks between business and the college of letters and sciences be created?

MR. GALBRAITH: We saw the results that came from you. Unfairly, we said, "You didn't do your job, therefore, I don't think I want to counsel with you and I'm going to find someone else." Are we saying that upper education is at fault and we should be looking at secondary and primary education?

EDUCATION: I think one of the problems is that we went through a very difficult period from 1965 to 1973 when a lot of performance standards were no longer supposed to be in force.

It was a feeling that you couldn't force students to learn things; that there was something inside that automatically would come out if you just sat around in a group and talked. Those were errors, and I think the universities, secondary, and primary schools are facing up to those errors. There's now a rebalancing going on in the institutions. It's a waste of resources in society for business to be taking on what it does poorly, which is training these students, and for the university to be taking on what it does poorly, which is training people in vocational skills. Business has to demand that people who graduate from universities have those skills. Universities have to demand that students who graduate from secondary schools have those skills. But on the other hand, we shouldn't be asked to train people for special skills. Industry can do that much better with on-the-job training. I think it's a rebalancing that has to go on.

INDUSTRY: I hope that the educators in this room today don't feel that the American private enterprise is suffering because they have a lack of trained people. I think we've got an excellent trained work force. We're trying to decide what more can we instill. Industry has done a lot of training on their own, and so has the education system. It's a hard thing for some newly degreed people entering corporate life to comprehend that they now are in the business of being in competition with a lot of other people who have the same degree. Most people who graduate start in their chosen field, but over the years they evolve into something else. Basic education has to start someplace. Somewhere along the line, because of their basic education, they are going to get into another field.

EDUCATION: It seems to me that part of our education should be to prepare students for change, and to help students to be self-conscious about the fact that they become seniors and then they become freshmen again, and they do it all over again. They are successful then as students, and in a sense they are freshmen again. Maybe not at the bottom of the company's line, but they feel themselves as beginners again in the sense of freshmen learning something else. We let them go through all this without doing anything to help them with the social and interactional problems. It does make a difference that they are starting all over again. We, too, have to recognize and make ourselves aware that this is happening.

MR. GALBRAITH: Can you say though that this interpersonal relations communication aspect is a problem or an opportunity that you must come to grips with, both as educators and as industrialists? I'd like to move on now to one subject that seemed to surface; that is the retraining of the middle-aged worker and what the relationship between industry and education is in this retraining.

MR. ABBOTT: I pointed out yesterday that this is becoming increasingly an activity of community and technical colleges and institutes, and that is going to continue. I see this as a tremendous potential for higher education. I see that this is a need people have. They want an avocation or a part-time job, or sometimes a full-time job. People want a change in their lives. They want to have a new interest.

MR. GALBRAITH: What can be done to bring people up to the level of today's adult education?

MR. HICKMAN: I think we really have to divide this middle-age education problem into several pieces. There is no general answer to it, and I can only respond in terms of examples. We know that we can open our universities at more convenient hours and we can teach the same old basics without a lot of restructuring. In the urban universities we are already doing these things to a great extent. We hope to update our standard program and do a better job. On the other hand, a lot of the retraining chores during an active lifetime are very specific and are not very well done at a big university. I'm talking about specific job-related matters. These probably are going to get done on a direct cost basis; perhaps jointly sponsored by the professions or specific industries. When we're talking about major career changes they will be accomplished by existing programs, perhaps offered at more convenient or non-traditional hours, and probably financed in the way general education is now financed. This will be true because it is in society's interest to encourage these major retraining programs.

MR. GALBRAITH: How do we solve the dilemma of hard work, re-education, and promotions versus leisure time and ego-centered activity?

EDUCATION: We need to take care of the individual's wish to work and have the expertise and human resources to provide a service to our society. At the age of sixty-five many people may be under job tensions that have to do with personnel problems or production problems. They may like to continue, but at a more liesurely pace, dictated by their own hours or topics that they may work on. We're going to have to look at ways of using this human resource and make it pleasant to do so. Otherwise, we are going to throw that human resource right down the drain.

MR. GALBRAITH: I met some people from Germany who were on a lengthy holiday and they said the workers in West Germany get a week's holiday, in addition to their regular holiday, if they can spend a week in some sort of cultural enrichment. This is an extra incentive to them to be part of a movement in

Germany that started when they began to industrialize their society. They were concerned about the utilization of not only leisure time, but also of the other abilities and interests in that person's life. Maybe the answer is that we need to start before people get to sixty-five and find that they haven't started using these abilities.

INDUSTRY: I don't think you and I can try to encompass all the various people in this country and come up with all the solutions. If an employee does come up with a decision that he wants to improve his career, you as educators would have to have an outlet for this particular person to get further education.

MR. GALBRAITH: Industry should say, "These are the things that are offered and this is the price you'll pay for promotion." Industry must say to this employee, "You would like to upgrade yourself; you aspire to a hard job. If you do, this is what the price is that you'll pay in terms of education," rather than saying"I have been good on the job and I have done my work well, therefore you should reward me just because I have been doing my job well."

DR. HEY: It's not only elitist, it's morally wrong to tell people the way they should do things. One of the problems that looks like a necessity, given the demographic facts you were outlining yesterday; we have got to devise a package of tax policy, of social security policy, of retirement policy, of more encouragement to the people. It's going to be too expensive to have retirement at sixty-two. Now, what mix of financial inducements, educational inducements, tax inducements, and so forth can make that decision a little bit more attractive? We've still got a few years to work this out. It's very important that we do so. When you get to the place of having two workers and one retired worker, not only is that expensive financially, but I also think socially. It's not all that good to have that many people on the shelf. I don't want to do it by saying, "You've got to work until seventy or we'll push you in the river or something."

INDUSTRY: We have been talking all along here about keeping the worker continuing up the career path and educated to go on up. I think what we shouldn't forget is that demographic pressures are going to force us to take the worker out of the career path, retread him, and bring him back in at the bottom and maybe in a different career. Suppose, when I get to be forty-five, I want to stop whatever it is that I have been doing and become an architect. How am I going to ever get the incentive to leave something I'm comfortable in, go back to school, and come back at the bottom of the staff by doing the drudgery that we talked about yesterday?

MR. ABBOTT: You reminded me that Rutgers University is starting programs to develop education counselors inside of factories. United Auto Workers also is trying to get a similar project underway. They are using counselors in the work setting to help people direct their careers and enrich their lives. I see this as a coming trend in the United States. We have a right to a second, third, or fourth chance at life. We need somebody to help us and to advise us, as counselors right at the work situation.

MR. GALBRAITH: I would like to direct a question to industry. We have a person in the middle-age bracket and we are going to reprocess him. From your viewpoint, is this economical? Can you afford to do it?

INDUSTRY: Of course we can afford it--if you can afford to pay twice as much for your goods. We can establish universities within our factories. You have to determine whether the economic impact of that social decision is worth it.

INDUSTRY: But it seems more of the cost should be borne the way that training young people is borne today. We are taking people who are potential workers, and we are paying for their education for us to get them ready to take them in. We are doing that with public funds. We heard that in thirty or forty years there aren't going to be any young people, and we are going to take old people. Well, doesn't it follow that that's still a public cost to get them ready to be active again? We pay more one way or the other.

EDUCATION: The other element that hasn't been addressed is the change in who that younger worker is going to be. There will be fewer numbers of younger workers. We are talking now, at least in the Milwaukee area, that younger workers very possibly will be Black or Latin. It's not the younger worker that you are used to receiving in your firm. The majority of students in our school system will be minority. You may make a certain assumption about your incoming workers that may not be true. When we talk about educating workers we may have a different set of problems than we are used to having in terms of our incoming workers.

MR. GALBRAITH: We have spent a day and a half together in something very productive. First, I want to thank the busy people from business who spent time with us giving input to our educational institutions and opening a line of communication. We have not been able to come to grips with specifics within the time allowed. Our presenters have dealt in

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generalities and given us a fresh outlook. We are also grateful to the educators for doing a good job of listening. I want to thank our panelists and resource people for giving us a great background.

DR. HEY: I want to give one reaction. I think it has been a remarkable thing that industry and education have been able to sit down and talk to each other because these two groups in our society have been marked by mutual suspicion. I think this has been remarkable. My thanks to the committee who thought it was possible.

CLOSING COMMENTS BY
MR. EUGENE LEHRMANN

Just a quick look at some of the things that I think we talked about here in these few days, and a few other comments in conclusion.

First of all, we in education are certainly going to take back with us some of the things we heard in terms of lifestyles and population trends. We are well aware of the fact that in many occupations retirement age is growing older, and we are very much interested in the fact that this trend takes place in middle years. I can't help but think, as I was telling somebody recently, that retirement really is not so bad. In former years, the middle years in agricultural states was fifty-five years of age and not sixty-five, and now, all of sudden, it catapulted to seventy and above, I guess perhaps more for economic reasons than any other.

There was a survey which I read that indicated persons in the sixty through sixty-five category would probably opt to take early retirement. Anyway, we need to take a look at this. We as educators need to be concerned with the statistics we saw on fertility rates, and I think more important to us is where this change is occurring. I'd like to see more of it broken down in terms of where and what proportions of the population's children are being born and how that is going to have an effect on our educational programming in the future. There is no question that we are going to have to pay a great deal of attention to females coming into the work force. All of these things impact upon where we are going in the future.

Just a few thoughts in terms of where we stand in the economic situation. As far as we are concerned in education, we need a mechanism to aid new technologies. You people in industry and business are the ones that should help us do that. You should give us lead-time so that we can indeed do the job. Some of us can remember just fifteen short years ago when we talked about developing a technology. One I can identify was right in this area, namely fluid power. When we went to business and industry, one of the companies here in Racine said, "Yes there is a need for them but not for so many." Two years later when a class in this associate degree program graduated (there were some twenty young people) they were all snapped up before they even graduated. Now true they were spread throughout the country as a start but at the time we started it, only one industry came forward and said, "There is a need for that kind of a person."

Education can be on the cutting end, but we will need some suggestions from business and industry to help us do that. The university is going to need that in terms of doing their educational planning and so will our vocational-technical system. There is a need for cooperative mechanism between business, industry, and education to constantly view societal trends as backdrops for planning, because we need to determine what the trends are and what things lie ahead of us and to do something about it. The shift from industrial occupations to service occupations is something that ought to concern all of us, and we ought to take a look at how we are going to make these adjustments.

I can truthfully say we don't have as many dramatic changes as we have had on prior occasions in the introduction of new technology. But again I would cite AMC, American Motors at Kenosha put in a computer to assemble the parts that they were going to use in putting together the Rambler. At the time I was there when they shut down for retooling and laid off approximately 1500 workers that they didn't employ when they opened up three weeks later. This is the kind of dramatic change that I believe is happening on a very subtle basis in business and industry. We in education need to know about this plan so that we can plan for those changes that lie ahead.

I heard something that really is of interest to all of us and that is this human relations aspect. Helping to change the attitudes and interests of people. Persons who learn to do something well make good employees and good citizens. Remember if we are able to teach people to do something well they are going to be happy doing that and as a result of this if they are happy generally, they are going to be better citizens.

I guess we have a role in education to play to help you people in business and industry in terms of doing a better job. We have to keep in mind that the basic general education that is provided at the university level and to some degree at the vocational-technical level is an important component for the future. We need to be able to work with students so that they in turn can make applications when they come to business and industry that will help the development of new ideas, help with research that will help industry and business move ahead.

I think most of us indicated somewhere in the conference that we needed to instill in our young people, and I expect this goes all the way back to elementary and maybe pre-school days, the desire to learn. There are two things that I watched and these two things that I have seen happen to concern me. The first of these is the fact that young people have not been taught discipline before they come to school. In many cases, it is left to the school to develop disciplinary measures. The second thing is there has been very little instilled on the part of the young people the desire to learn. I would suggest to the business and industry people to take a half day off and walk into a first-grade classroom, and I will suggest to you that you will learn those two facts by the end of a half day.

I am saying we as Americans better step back and take a look and see what we do in that early lifetime of our children, because they in fact are the ones that later on we have to deal with in educational communities. You deal with them in industry, and the Government deals with them by writing huge programs that cost us tremendous amounts of money, because no where along the line do young people learn to discipline themselves, and I doubt that very many of them can't indeed be effective workers unless they learn that somewhere along the line.

I guess one of the things that we as educators are concerned about is that we are so often called upon to do things when a crisis is involved. I think most of us remember World War I -- at least I was going to say World War II--there are men that do remember that, but I remember massive

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overhauling that took place in the educational communities, at the university, and at the vocational-technical level. This,as an example,came about as a result of a crisis. Something that we in education, business and industry should have been doing on a regular basis while always moving ahead.

I think there was another aspect here that we didn't touch upon and I do want to mention it. There is that side of the role that we have to look at and examine as educators and you as representatives of business and industry can look at from the worker's viewpoint. I know that in many of the trades they have excellent retraining programs. Organized labor has joint-apprenticeship committees. Construction and a number of other trade areas see to it that not only are they given apprenticeship programs, but that there is a plan for those to expand as knowledge expands in their areas.

To think things through workers must have a basic education and be upgraded on a regular basis. Just an example of that, plumbers used to cut off six inches of pipe if that might have been close enough. When they cut the last six inches of pipe off, and I am not saying that they did that, but they could and they were throwing away a nickel's worth of pipe. When they went to put pipe in the plumbing in an atomic industry they were throwing away $23,000 worth of pipe.

All I am saying is there are retraining programs in existence. The university is involved in it with the schools for workers. I think we all need to think about this and the total situation. Well, we all have a societal interest I am sure we all know that if we don't do a good job I guess the choice is something that is a lot less desirable than giving the people an education.

We seem to have examples of what the Federal Government does when it establishes its priorities in terms of wanting to reduce the unemployment roles, wanting to do something for that category of people that is referred to as disadvantaged or handicapped and for the minority population. We look at all of those then and see the cost of those programs. Maybe we cooperatively,as business and industry,ought to take a look at what you can do, and education ought to take a look at what we can do to be more effective. Somewhere along the line we are going to have to pay for it.

SUMMARY ON CONFERENCE HIGHLIGHTS

According to reactions gathered through the Conference Evaluation Form the majority of representatives attending from both Education and Business/Industry agreed that the presentation on Demography revealed both new trends and new ideas which will have an impact on higher education. Representatives were also impressed with the information presented on changing life styles, however, Educators responded more favorable to the importance of these trends and new ideas on higher education. The presentation on technological changes had lesser impact on all representatives in attendance. There was about equal agreement from all respondents that the discussion sessions were valuable in helping to identify impacts related to business, industry, labor and education, and provided an opportunity to further explore and clarify the major presentations. The opportunity to discuss the conference topics with persons from business, industry, labor and education was beneficial for all in attendance, however, these sessions were in need of greater response and representation from business/industry and labor. Many evaluations also indicated a need for increased time devoted to discussion groups.

More complete responses to Conference Evaluation can be found in Appendix A.

The Conference Agenda and a List of Participants is given in Appendix B.

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APPENDIX A

CONFERENCE EVALUATION

FORM AND RATINGS OF RESPONSES

To assist the planning committee to determine if the conference objectives were met, please respond to the following questions.

1. Your position is in:

8 (1) Business/Industry
(2) Government
(3) Labor
10 (4) Education
(5) Public Service
2 (6) Other (please list) ________

Please circle your response:

1=SD=Strongly Disagree
2= D=Disagree
3= N=Neutral
4=A=Agree
5=SA=Strongly Disagree

						RESPONSES		
	RATINGS					MEAN SCORE		
	SD	D	N	A	SA	B/I	ED.	OTHER
2. The presentation on changing life styles revealed several trends which will have an impact on higher education.................	1	2	3	4	5	4.0	4.8	4.0
3. The presentation on changing life styles provided me with some new ideas which will have an impact on higher education.......	1	2	3	4	5	3.6	4.4	3.5
4. The presentation on technological changes revealed several trends which will have an impact on higher education.................	1	2	3	4	5	3.0	3.2	4.0
5. The presentation on technological changes provided me with some new ideas which will have an impact on higher education......	1	2	3	4	5	2.7	2.6	3.5

	RATINGS					RESPONSES MEAN SCORE		
	SD	D	N	A	SA	B/I	ED.	OTHER
6. The presentation on demography revealed several trends which will have an impact on higher education	1	2	3	4	5	4.3	4.9	4.5
7. The presentation on demography provided me with some new ideas which will have an impact on higher education................	1	2	3	4	5	4.0	4.7	4.0
8. The discussion session helped me further explore and clarify the major presentations............	1	2	3	4	5	3.6	3.8	4.0
9. The discussion session helped me to identify impacts related to business, industry, labor and education............	1	2	3	4	5	3.9	3.8	4.0
10. The opportunity to discuss the conference topics with persons from business, industry, labor and education was beneficial..........	1	2	3	4	5	4.1	4.2	4.0

COMMENTS

Would you be willing to participate on an Advisory Committee to study the conference findings?

11. Yes

12. No

	B/I	ED.	OTHER
Yes	4	10	1
No	4		

13. What did you gain most from this conference?

14. What did you like least about the conference?

15. Other

CONFERENCE EVALUATION

EDUCATION

STRENGTHS:	FREQUENCY OF RESPONSE
1. An awareness of and substantiating data to support demography, life style, and technological changes.	6
2. Increased contact with business/industry. Crystallized some ideas of this subject.	
3. Contacts with a variety of people. Chance to hear other points of view. Pleasure of interacting with a quality environment: faculty and staff.	3
4. Perspectives and opportunity for testing ideas.	
5. Awareness stage of problem identified.	
6. An insight into the role that educator's can't resist playing in better preparing students for life in general, in addition to their professional careers. The conference underlined the importance and significance of general, or liberal arts, education and its role with the technical career.	
7. Identified social trends.	
8. Identified need for updating skill due to technological change.	
9. Considered status of emerging technologies.	
10. Excellent facilities and atmosphere for holding such conferences.	2

LIMITATIONS:

		FREQUENCE OF RESPONSE
1.	The group sessions were too heavy with educational representatives and didn't include enough variety from business/industry.	7
2.	Lack of focus on conference topic.	2
3.	Lack of particular attention to technological changes.	2
4.	Most discussion dealt with management rather than workforce concern.	
5.	Experienced little interaction with industrialists.	
6.	Too much discussion on Bachelor Degree needs and General Education. The mass workers still report to a first line supervisor and they were not available and if so were not heard.	
7.	Community college orientation and labor rather than technology.	
8.	Lack of representation from private educational institutions.	
9.	Issues related to minorities (if follow-up) needed attention.	
10.	Government representation - wider mix of representation, i.e. Manpower, Job Service.	
11.	The top executives sent their subordinates several levels removed from the top.	

RECOMMENDATIONS:

1. Consider optimal number of participants for conference.

RECOMMENDATIONS:

2. How to deal with a variety of technological changes; identify how the University relates to these changes.
3. Send out questions for developing position papers so dialogue on implementation can be "meat" of conference.
4. Present materials ahead of time on mission, orientation to U.W. and VTAE systems.
5. Have a follow-up conference of participants back at Wingspread; post conference evaluation session.
6. Share results with staff.
7. Bring worker element to next conference.
8. Give consideration to women in the workforce.
9. Consider the implications of demography on future planning by educational institutions.
10. Initiate articulation between industry/educators (Advisory Committee) to focus attention on needs of industry in order that educational institutions can identify and initiate needed training programs.
11. Maintain continued cooperation and exchange of ideas in New Program Development among cooperating institutions represented at Conference; Gateway Technical Institute, U.W. - Stout, U.W. - Parkside, and the State Board of Vocational, Technical and Adult Education.
12. Reconvene "chief" executives of supporting institutions for further dialogue on the subject of Cooperative Program Planning.
13. Establish a Newsletter to be prepared by the State Board and sent to representatives from the schools and business/industry who attended the conference informing them of activities being initiated throughout the state.

14. Make plans for this type of conference to be held on a yearly basis.

15. At other conferences present a list of training programs currently being offered and get an evaluation by business/industry/educators of present effectiveness, whether current needs are being met, a projected need for maintaining programs, as well as new areas for consideration.

16. Identify ways in which educational institutions can provide in-service training programs for industry and business organizations.

CONFERENCE EVALUATION

BUSINESS/INDUSTRY

		FREQUENCY OF RESPONSE
STRENGTHS:		
1.	An opportunity to review our own business in a new perspective.	
2.	The realization of a need to communicate the basic function of business - to best serve the public with the products they need/want at the best quality commenserate with the lowest cost.	
3.	Chance to meet some educators.	
4.	Better appreciation of the magnitude of changes we are facing.	
5.	A realization that this is a difficult problem and very much individualistic.	
6.	Better understanding of the need for industry to advise educators of their needs.	
7.	Sharing of ideas in group discussion and the opportunities for informal conversation.	
8.	Mutual understanding of problems related to long range planning for education.	
9.	Exposure to the enthusiastic interest of education in planning and looking to the future for the purpose of identifying and solving these problems.	
LIMITATIONS:		
1.	Needed more business/industry representation, conference was dominated by educators.	3
2.	Insufficient time for discussion groups.	3
3.	Not enough time to get into problem areas.	2

RECOMMENDATIONS:

1. Limit attendance with a planned balance in representation from business/industry/education.

APPENDIX B

CONFERENCE AGENDA

MONDAY, October 23, 1978

8:30 A.M.	Coffee and tea served on arrival
9:00 A.M.	Plenary Session -- Terrace Room
	Welcome to Wingspread
	LESLIE PAFFRATH President, The Johnson Foundation
	Introduction and Charge to Participants
	DONALD S. GALBRAITH, Learning Consultant, Brookfield, Wisconsin
9:15 A.M.	Presentation on Changing Lifestyles
	RICHARD HEY, Professor and Head, Department of Family Social Sciences, University of Minnesota, Minneapolis, Minnesota
10:30 A.M.	Presentation on Technological Changes
	WILLIAM ABBOTT, Director Service Center for Community College-Labor Union Cooperation American Association of Community and Junior Colleges, Washington, D.C.
12:00 NOON	Hospitality
12:15 P.M.	Luncheon
1:15 P.M.	Plenary Session

MONDAY, October 23, 1978 (continued)

Presentation on Demography

JAMES C. HICKMAN, Professor, School of Business,
University of Wisconsin - Madison, Wisconsin

HAZEL REINHARDT, Division of Planning
State of Minnesota, St. Paul, Minnesota

3:00 P.M. Refreshments

3:15 P.M. Discussion Groups

GROUP A

Leader: ALAN GUSKIN, Chancellor, University of Wisconsin, Parkside-Kenosha, Wisconsin — Terrace Room

GROUP B

Leader: EUGENE LEHRMANN, State Director Wisconsin Board of Vocational, Technical and Adult Education Madison, Wisconsin — Cypress Room

GROUP C

Leader: KEITH W. STOEHR, Director Gateway Technical Institute Kenosha, Wisconsin — Writing Room

GROUP D

Leader: ROBERT S. SWANSON, Chancellor University of Wisconsin-Stout Menomonie, Wisconsin — Library

5:00 P.M. Leisure

Radio taping for "Conversations from Wingspread" - Johnson Foundation Public Affairs Programs broadcast nationally

6:00 P.M. Hospitality

6:30 P.M.	Dinner served	
7:30 P.M.	Discussion Groups Continued	
9:00 P.M.	Adjournment	
	At the Inn - Room 233 - Available for conference participants who wish to join in informal conversation.	

TUESDAY, October 24, 1978

9:00 A.M.	Plenary Session	
	Reports from Discussion Groups	
10:00 A.M.	Coffee and Tea	
10:15 A.M.	Plenary Session	
	Summarization Panel	
	JAMES C. HICKMAN	
	RICHARD HEY	
	WILLIAM ABBOTT	
11:30 A.M.	Mission Articulation -- Responses	
12:00 NOON	Hospitality	
12:15 P.M.	Luncheon served	
	RECAP	
	EUGENE LEHRMANN	
1:30 P.M.	Conference Adjourns	
	Meeting of the Planning Committee	Library
3:30 P.M.	Adjournment	

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WINGSPREAD FELLOWS

Wingspread Fellows are chosen by their college to participate in the program. Fellows are invited to observe Wingspread meetings relating to their respective fields of interest. The program is an effort to give broader experience and added dimension to a selected group of outstanding students in order to provide them with opportunities for improving their leadership potential in career fields, including public service.

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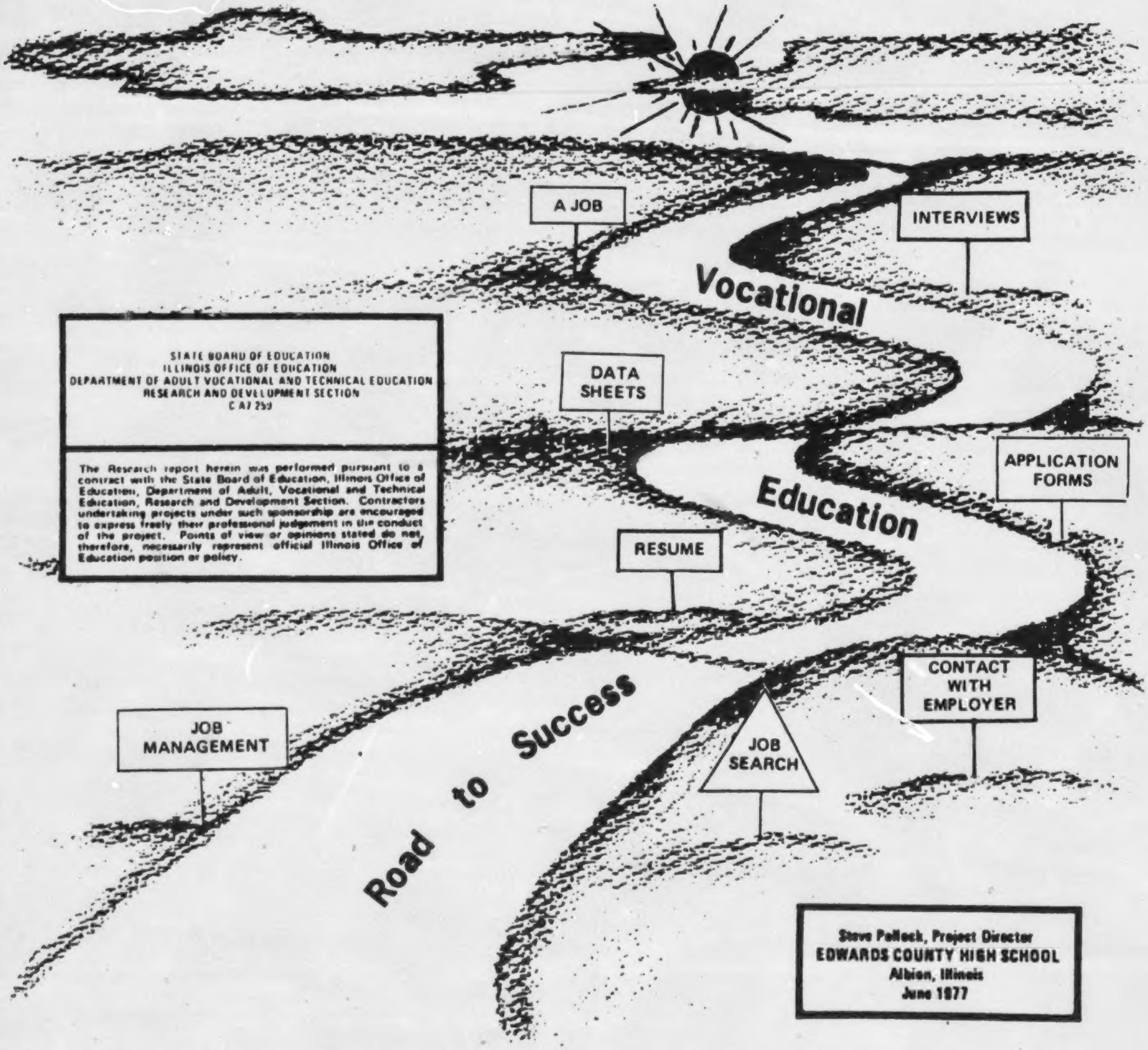
APPENDIX C EXHIBIT # 1

A CURRICULUM GUIDE for PRE-EMPLOYMENT SKILLS



STATE BOARD OF EDUCATION
ILLINOIS OFFICE OF EDUCATION
DEPARTMENT OF ADULT VOCATIONAL AND TECHNICAL EDUCATION
RESEARCH AND DEVELOPMENT SECTION
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The Research report herein was performed pursuant to a contract with the State Board of Education, Illinois Office of Education, Department of Adult, Vocational and Technical Education, Research and Development Section. Contractors undertaking projects under such sponsorship are encouraged to express freely their professional judgement in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Illinois Office of Education position or policy.

Steve Pollock, Project Director
EDWARDS COUNTY HIGH SCHOOL
Albion, Illinois
June 1977

ACKNOWLEDGEMENTS

I wish to take this opportunity to express my sincere appreciation to the many people and organizations who have contributed their expertise and time to make this curriculum guide possible.

Edwards County Community Unit District No. 1 appreciates the support provided by the State Board of Education, Illinois Office of Education, Department of Adult Vocational and Technical Education - specifically Dr. Ron McCage, Director of the research and development section and his staff.

The project staff wishes to thank the Edwards County Board of Education and administrators for their support and cooperation throughout this project.

A special thanks to the following people for their contributions to the curriculum guide:

Mrs. Connye Barrow, Triton College, for her support and encouragement for me to complete this manual and for her work as a consultant throughout this past year.

Mr. Wayne Henegar, Coordinator of Agricultural Mechanics, Wabash Valley College for his work as project consultant.

Dr. Wayne Ramp, Dr. Richard Boss and Dr. Harvey Ideus, of Southern Illinois University at Carbondale, for their help in providing information for this manual.

Miss Darla Bunting, project secretary, for an excellent job of typing.

Mr. Larry Hoeszle, instructor, for teaching the careers class that was used to field test this material.

Mr. George Calhoun and the high school printing class for printing this manual.

Mr. James Marshall for his research and writing for this curriculum guide.

Miss Jan Musgrave for her research for this project.

And to my wife and family for their support and sacrifice for me to work on this research project.

Steve Pollock
Project Director

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INTRODUCTION

In recent years we have seen a tremendous growth in vocational-technical education and thus an increased opportunity for youth and adults. Today many students completing school have an entry level-skill to offer the world of work. Schools need to meet the promises made to students and parents about jobs and employability of graduates. Research completed on pre-employment skills of students clearly shows a need for this program as a part of a total vocational program to aid the students transition from school to the world of work.

There had been a mounting concern for accountability in our educational system in recent years. I believe school systems need to be more accountable for federal, state and local monies spent for education. Parents and students are also concerned about accountability. Many students spend 12 years in public schools and at the end they are "all dressed up but no where to go." A pre-employment skills program in school systems will supply the students with the skills to help them get to where they want to go.

Many schools provide some pre-employment skills information to their students. This project will attempt to bring together the materials now in use and develop needed materials to make a complete course of study to be used as a teacher's guide or daily lesson plan if a school adopts the program as written.

The average person entering the work force today will change jobs seven times during his or her working years. This person will change careers four to nine times. There are about 44,000 job titles now, and by 1987 there will be 10,000 new job titles that will require new skills to enter.

This curriculum guide will aid the vocational planners to include pre-employment skills in their school system. This should be the cap stone course that students will complete before entering the world of work.

Today many schools are implementing career assistance and placement services for students. We believe there is a place in the school curriculum to include a program in pre-employment skills to improve placement services.

TO THE INSTRUCTOR

We, the project staff, believe that this course of study can be introduced to the student body in such a way that students will see a need for these skills and will register for this ½ credit seminar course.

The material presented in this curriculum guide may be used as a complete course or any part of it may be used in different classes now being taught in your school. Research shows that many students in Vocational Education programs do not have an opportunity to learn these skills in schools today.

The curriculum guide is divided into 15 chapters and 40 lessons covering the skills needed to compete in the job market. Students who become competent in pre-employment skills will be better prepared to enter the world of work.

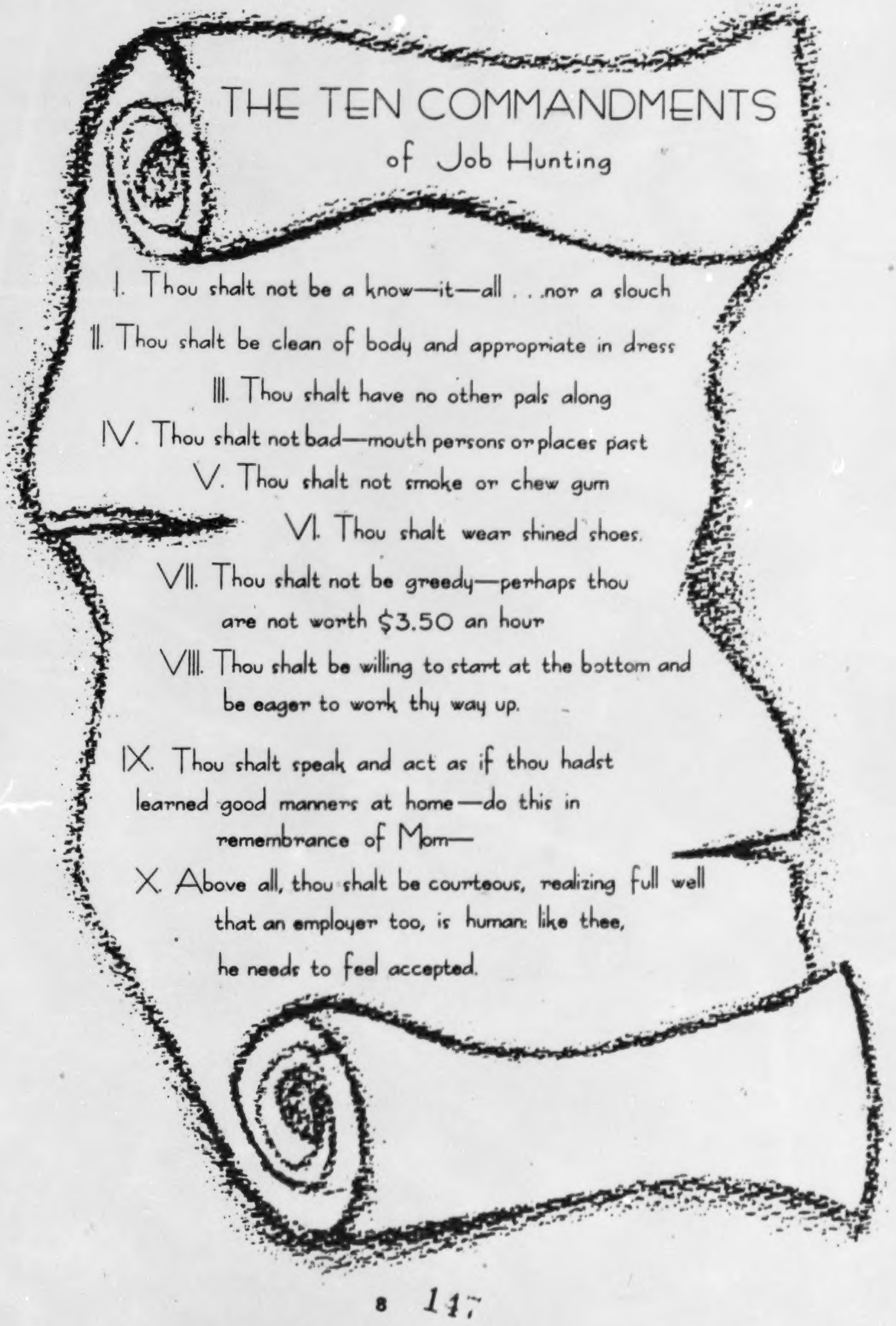
Many of the pages in this guide may be reproduced and given to the students for work sheets or may be used to make transparencies for use with the over head projector to present the material to the class.

The evaluation of the program may best be made from the results of follow-up studies on the students that completed this course and now are employed in today's work force.

Each student should provide a folder to keep all of his or her working papers developed while enrolled in this program. This will be their own resource file to refer to before they apply for jobs. This student file may be turned in at the end of the course and graded in lieu of giving a final exam.

Research shows there are many approaches to job hunting and finding employment. The information in this curriculum guide was selected as one way a person may seek employment. What works for one may not work for someone else but may be modified to fit all students entering the job market.

NOTE: The back of each page is left blank for instructors to add new information as the guide is used to keep it up-dated.



THE TEN COMMANDMENTS

of Job Hunting

I. Thou shalt not be a know—it—all . . .nor a slouch

II. Thou shalt be clean of body and appropriate in dress

III. Thou shalt have no other pals along

IV. Thou shalt not bad—mouth persons or places past

V. Thou shalt not smoke or chew gum

VI. Thou shalt wear shined shoes.

VII. Thou shalt not be greedy—perhaps thou are not worth $3.50 an hour

VIII. Thou shalt be willing to start at the bottom and be eager to work thy way up.

IX. Thou shalt speak and act as if thou hadst learned good manners at home—do this in remembrance of Mom—

X. Above all, thou shalt be courteous, realizing full well that an employer too, is human: like thee, he needs to feel accepted.

PRE-EMPLOYMENT COMPETENCIES

Students completing the pre-employment skills programs will have the following competencies:

1. The student will develop an understanding of the skills needed to seek employment in the world of work and to meet their career goals.
2. The student will learn to select people they know as resources to finding jobs. Letter writing skills will be improved by writing practice letters for getting assistance from people they know.
3. The student will be able to locate, read, and understand want ads and follow through on jobs of interest.
4. The student will be able to distinguish between the major functions of private and public employment agencies and will generally know what to expect from each.
5. Given the information on the school's placement services the student will be able to use these services in his or her job search.
6. The student will gain basic understanding of purposes and functions of unions, apprenticeships, professional and trade organizations, civic and fraternal organizations, and the civil service system and how they may be used in getting a job.
7. The student will appreciate the purpose of and necessity for preparing a well-developed personal resume.
8. The student will develop, organize, and prepare an acceptable personal resume to use as a personal model.
9. The student will become proficient in using the telephone skill in his or her search for employment, recognizing the need for courtesy and a pleasant, well-modulated speaking voice..
10. The student will become proficient at writing purposive letters which reflect the standards of convention together with the necessary ingredients of success.
11. The student will recognize the necessity and value of the walk-in procedure as an effective method of job seeking.
12. Given a list of words related to job application forms, the student will be able to spell and define these words to 100% accuracy.
13. Given a list of standard abbreviations used on application forms, the student will be able to understand their definition to the satisfaction of the instructor.

14. Given a list of application form components and procedures, the student will develop an understanding of each to the instructor's satisfaction.

15 & 16. The student will be able to complete the sample job application forms given in class.

17. The student will be able to name the different kinds of tests and their purposes.

18. Given the content of this lesson, the student will be able to approach common test forms with greater knowledge of increasing his or her probability of greater success in test-taking.

19. Given the standards outlined in this lesson, the student will be able to prepare himself/herself for the job interview with regard to personal appearance (i.e. grooming, clothing, personal action).

20. Given a list of questions frequently asked in job interviews, the student will be familiar with the types of questions asked and will be able to answer (in his/her own words) concisely these questions to the satisfaction of the instructor.

21. Given a list of problem situations and questions and suggested solutions, the student will become familiar with how to handle a problem situation that arises in a job interview to the satisfaction of the instructor.

22. The student will become more familiar with what to expect in a typical job interview situation and will become aware of the necessity of being able to handle various approaches frequently encountered when being interviewed for a job.

23. To develop an appreciation for the many factors that go together in the making of a successful interview--common reasons why applicants fail to be hired, the criteria generally used in evaluating job candidates in the interview, and the different things that turn interviewers off..

24. To give the student a working knowledge of the conventions, practices, and demeanor associated with the job interview process. instilling within him or her a value of what is proper when being interviewed for a job.

25. The student will be able to apply the concepts of successful interviewing in practice situations which will be criticized through class discussion.

26. The student will gain an understanding of what will be expected during the interview process and will be able to prepare accordingly.

27. The student will learn to recognize the hazards of becoming discouraged after unsuccessful attempts to land a job and will be prepared to encounter rejection shock as a possible factor in his or her own job search.

28. To acquaint the student with the types of forms that may be required of him or her and their purpose.

29. To review and enhance the understanding of the role of unions and professional organizations and the provisions under which one accepts employment.

30. To discourage the use of stated salary as the sole criterion used in the selection of a job and to develop an appreciation for the contributions of typical employee benefits.

31. The student will be able to analyze a prospective job objectively and with particular attention and concern for the details that may be decisive factors in his or her subsequent satisfaction and success on the job, as well as that of the employer's.

32. The student will become sensitized to the major laws dealing with employer and employee rights and their direction, intent, and general content.

33. Given the information sheet "Individual Adjustment to Work", the student will better understand some adjustments necessary to a working situation and be better prepared to make such adjustments.

34. To demonstrate to the students the need to develop the skills of giving and following instructions and how this relates to job survival.

35. Given the information sheet for Lesson #35, the student will be familiar with what to expect from a supervisor on the job and what is expected of the worker, also the importance of this relationship in a working situation.

36. Given the information sheet for Lesson #36, the student will better understand how relationships with co-workers effect a working situation and why it is important to get along with others.

37. The student will be able to list the elements of success on the job and the criteria for self-assessment of one's performance on the job.

38. The student will become familiar with the proper procedures necessary in resigning from a job.

39. The student will gain an understanding of the major reasons why workers are fired from their jobs.

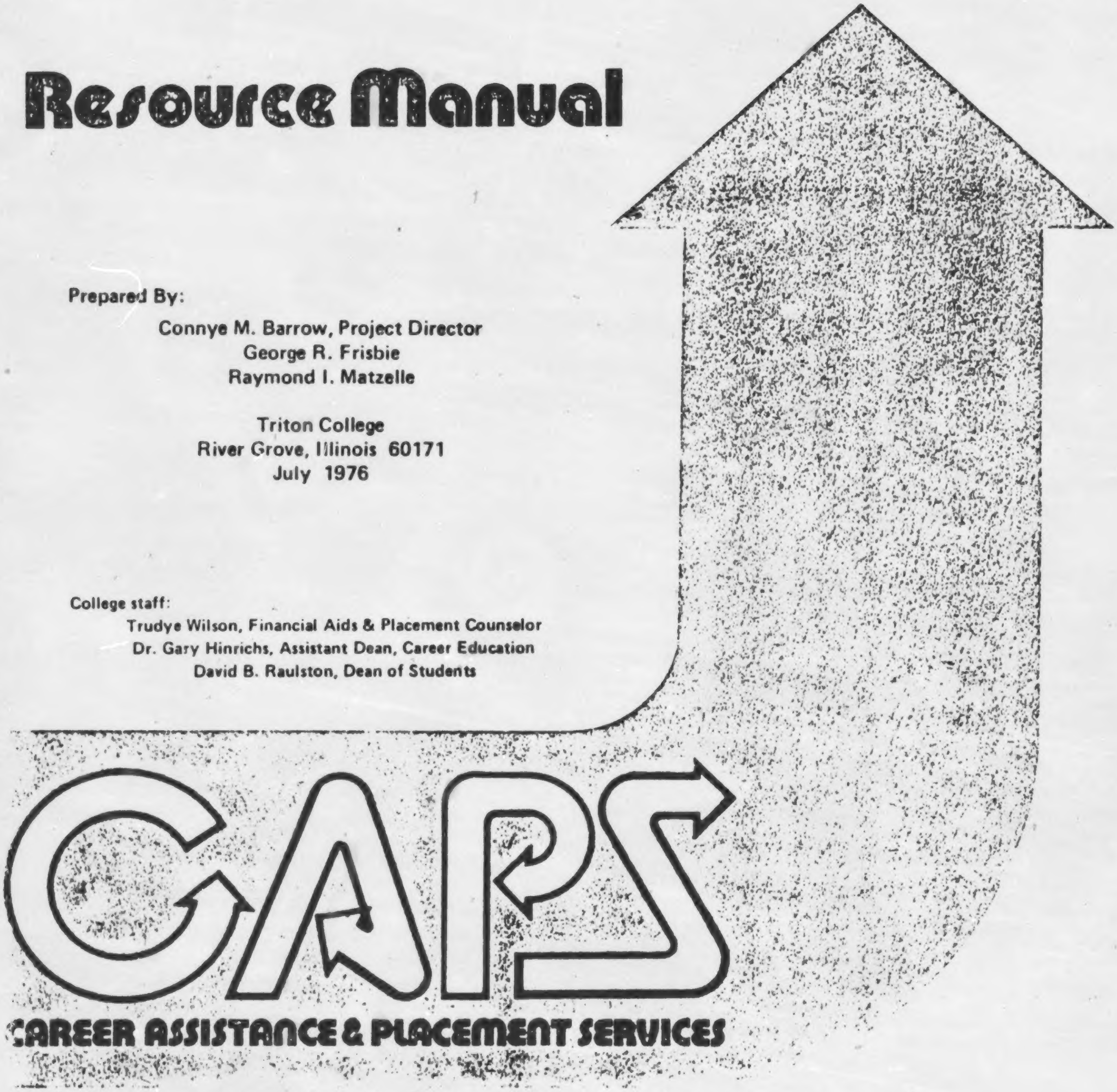
40. The student will develop positive attitudes about the necessity of taking constructive steps when being out of work.

41. The student will be able to provide a basic definition and understanding of the nature, purpose, and application of Equal Employment Opportunity.

42. Each student will compile a folder containing the material developed during the course. Each folder will be complete, comprehensive, orderly, and sufficient for the actual job search to be undertaken upon graduation.

APPENDIX C EXHIBIT # 2

Resource Manual



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CAPS

CAREER ASSISTANCE & PLACEMENT SERVICES

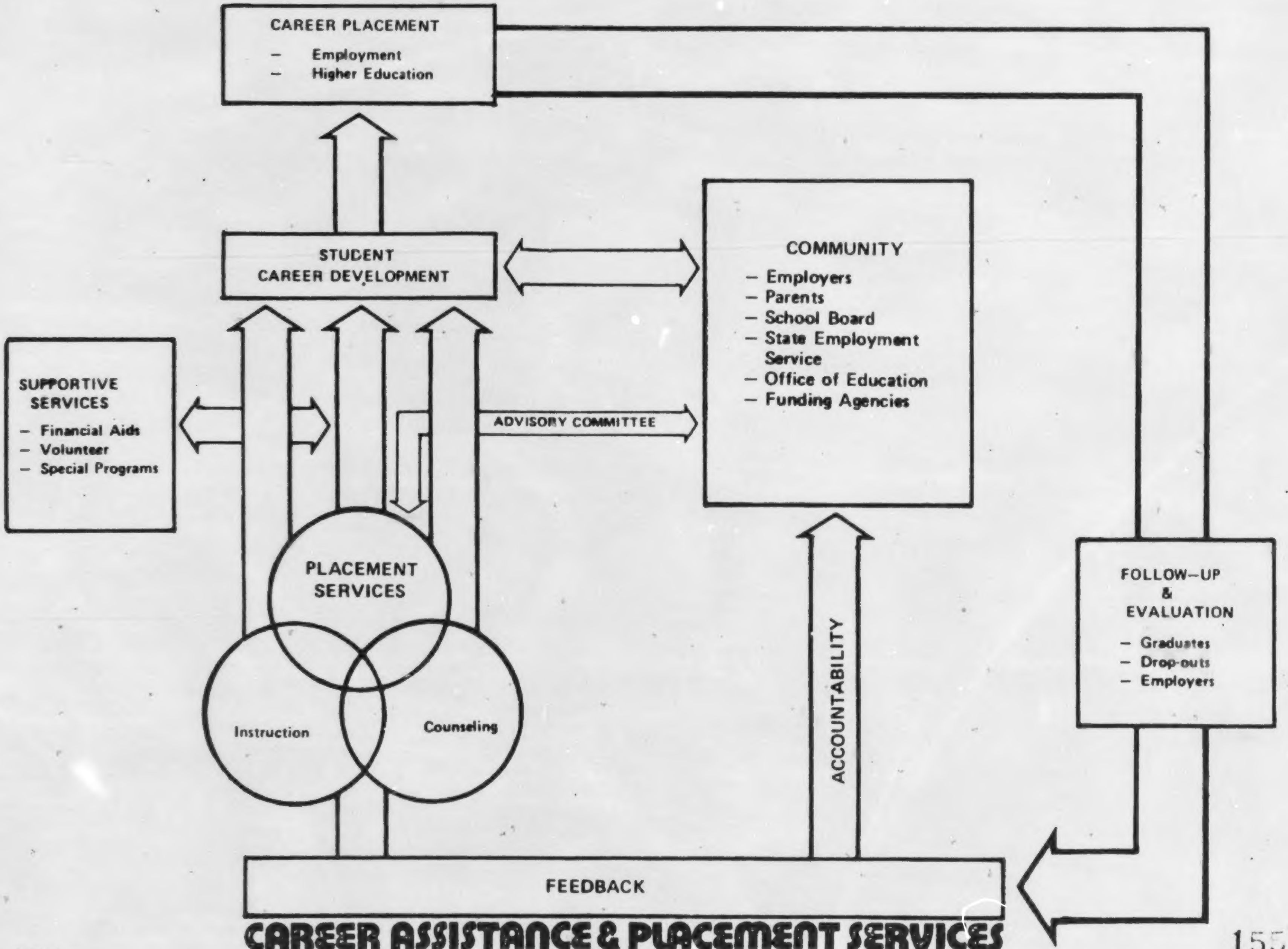
The research reported herein was performed pursuant to a funding agreement with the State Board of Education, Illinois Office of Education, Department of Adult, Vocational and Technical Education, Research and Development Section. Agencies undertaking projects under such sponsorship are encouraged to express freely their professional judgement in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Illinois Office of Education opinions or policy.

State Board of Education
Illinois Office of Education
Joseph M. Cronin
State Superintendent of Education

Department of Adult, Vocational and Technical Education

Comprehensive placement services contribute more to the school than tests of accountability. They assist in implementing the career education concept through service to students, interaction with employers, and generation of instructional and guidance/counseling resources for other staff. Public relations activities of placement services promote community good will toward students and the school.

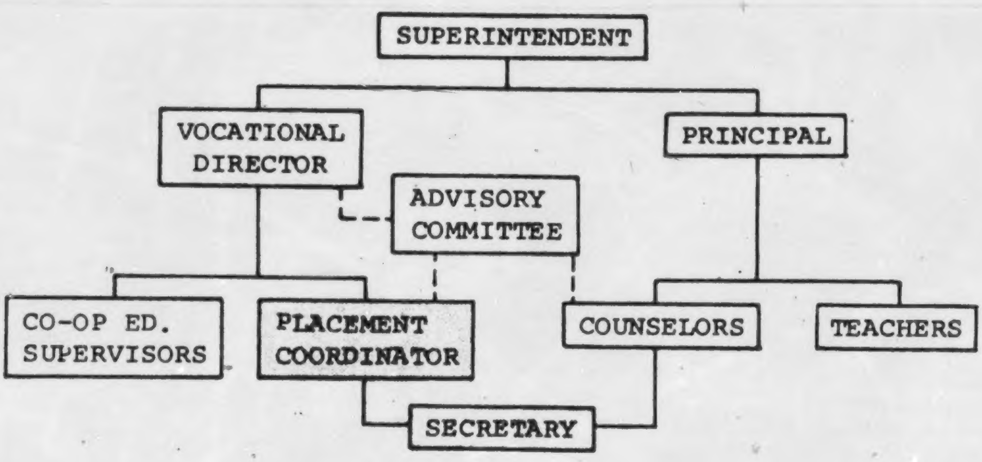
A comprehensive approach to placement requires more than the matching of students to jobs. To effectively serve the student, services must be viewed in the perspective of student career development and be thoroughly integrated into all career development efforts of the school. To achieve this integration requires close cooperation between placement and guidance/counseling programs as well as other school staff. The following figure illustrates the CAPS Model of comprehensive career placement services.



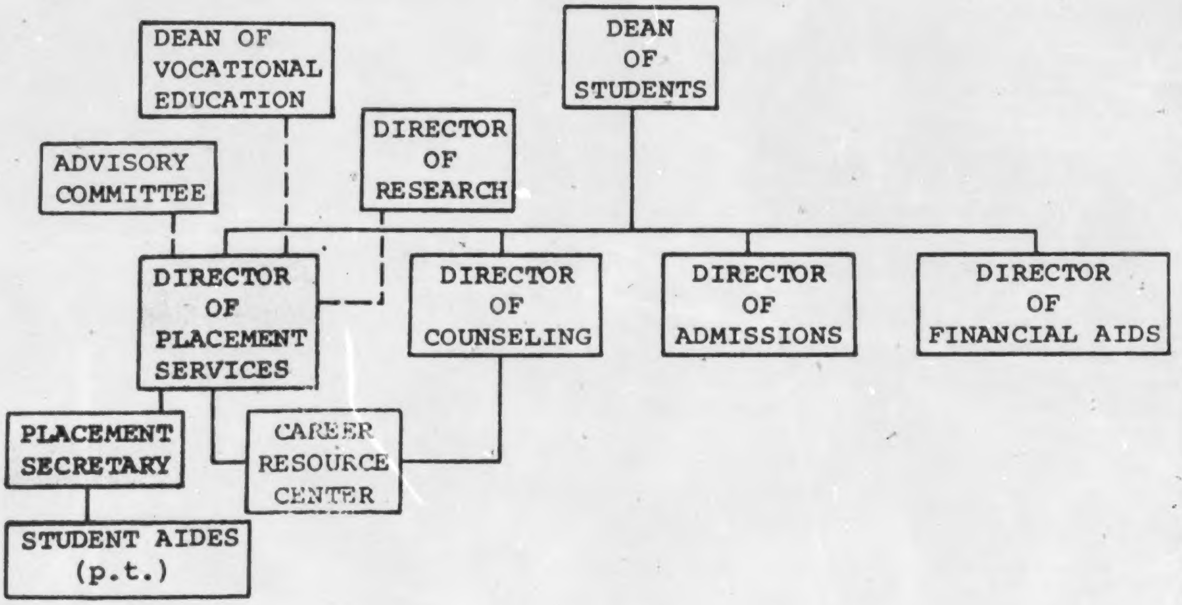
CAREER ASSISTANCE & PLACEMENT SERVICES

POSSIBLE ORGANIZATIONS FOR IMPLEMENTATION OF PLACEMENT PROGRAM

MEDIUM-SIZED HIGH SCHOOL



MEDIUM-SIZED COMMUNITY COLLEGE



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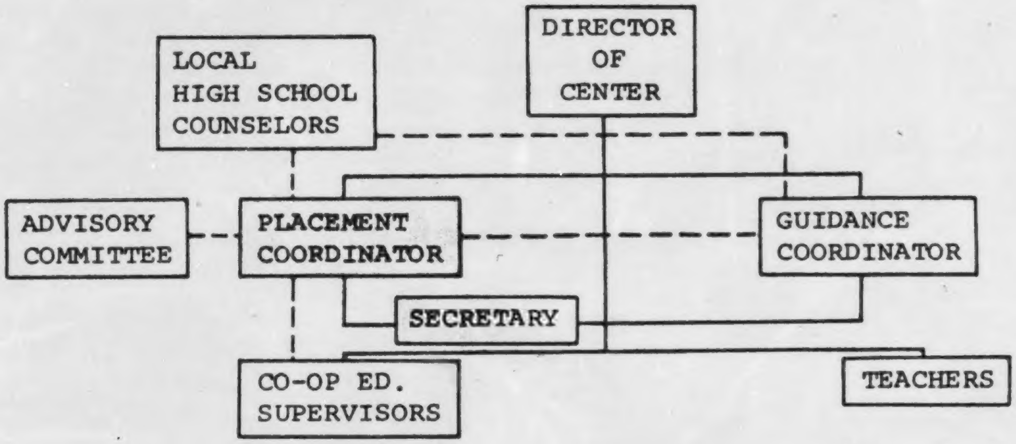
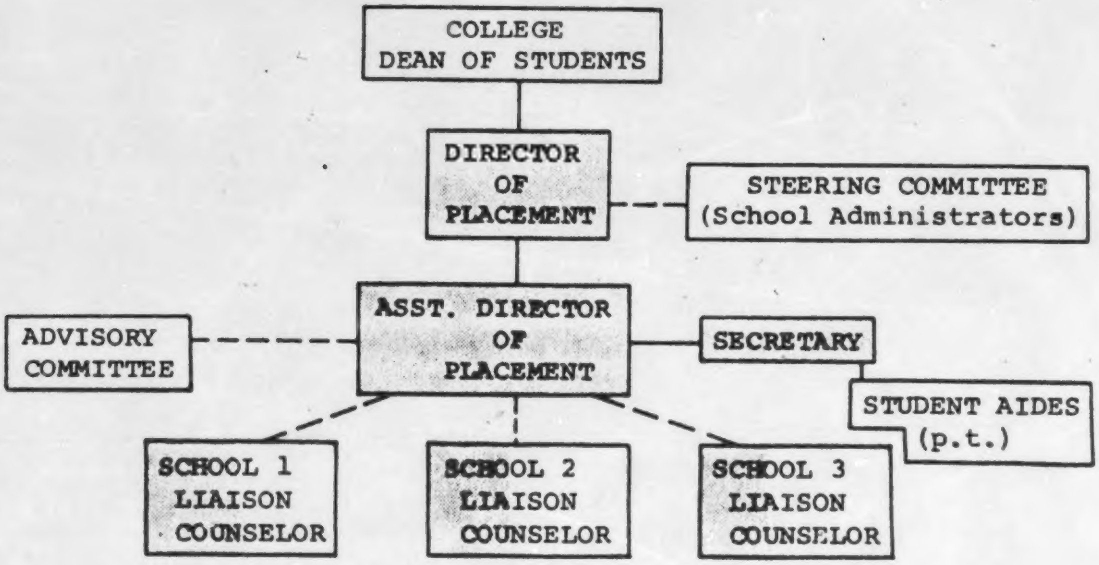
Page 2 POSSIBLE ORGANIZATIONS FOR IMPLEMENTATION OF PLACEMENT PROGRAM

AREA VOCATIONAL CENTER



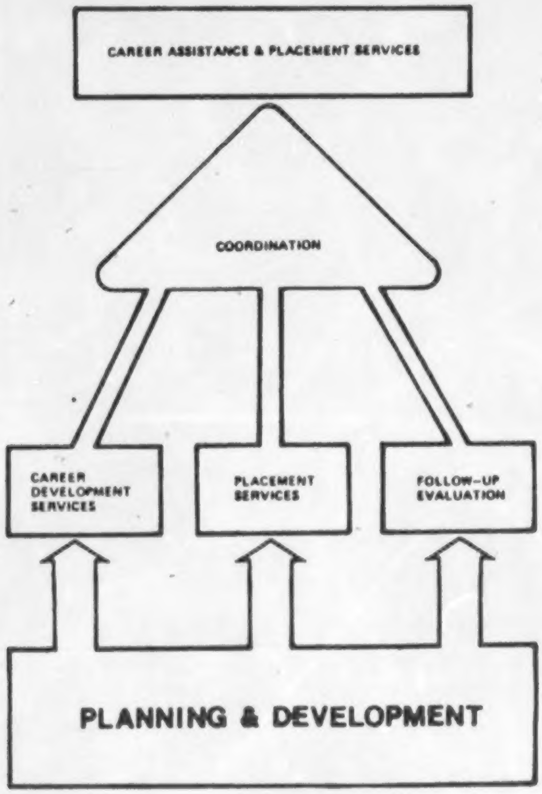
CENTRAL PLACEMENT FOR COMMUNITY COLLEGE AND SEVERAL HIGH SCHOOLS


COLLEGE DEAN OF STUDENTS
DIRECTOR OF PLACEMENT
STEERING COMMITTEE (School Administrators)
ADVISORY COMMITTEE
ASST. DIRECTOR OF PLACEMENT
SECRETARY
STUDENT AIDES (p.t.)
SCHOOL 1 LIAISON COUNSELOR
SCHOOL 2 LIAISON COUNSELOR
SCHOOL 3 LIAISON COUNSELOR

COORDINATION

Planning and development steps outlined in the previous section serve as a foundation for the placement coordinator to implement a program tailored to the needs and realities of the local setting. Coordination of the career placement program deserves careful attention during implementation.

Efforts aimed toward program coordination assure that services are fully integrated into the institution, avoiding duplication of effort and maximizing use of resources. Achieving this integration requires a partnership with faculty, administrators, and community members that ensures their fullest contribution to effective placement and minimizes their involvement in routine mechanics of placement.



A review of career assistance and placement services objectives makes apparent the broad range of services, activities, and resources which must be coordinated into a comprehensive program.

Career Development Services:

- Provide pre-employment preparation of students to assist them to seek, obtain, and retain employment
- Supplement efforts of career guidance staff to assist them in defining career goals
- Provide resource services to students and faculty on requirements of career opportunities and the changing nature of the occupational world

Placement Services:

- Assist students and former students in achieving career objectives by:

    Making known the full range of career opportunities

    Assisting them to present themselves effectively as candidates

- Assist students to find part-time, temporary, and vacation employment by:

    Providing financial assistance

    Providing work experience as part of vocational education and career development program

- Develop and maintain working relationships with employers who have opportunities of interest to students and former students

Follow-Up and Evaluation:

- Evaluate and improve the work of the career placement program
- Assist in evaluation of educational programs and institutional services

IMPLEMENTATION OF CAREER PLACEMENT PROGRAM

A systematic approach to the placement program requires that common threads running throughout the program and other school programs be identified and incorporated early to insure that maximum benefits are derived from individual effort. These common threads include:

- Related goals for student career development which placement staff shares with other staff members
- The need to organize community resources through advisory committees and public relations activities
- A need for more systematic use and generation of labor market information

The extent to which a school has already achieved a systematic approach in any of these areas will affect the establishment of placement program priorities. The coordinator may well be faced with a dilemma in deciding whether to begin a sorely-needed placement service virtually alone and gradually attempting to build partnerships or to devote early time and energy to organizing human and material resources into a comprehensive system. As a word of caution, the problems reported by an overwhelming majority of placement survey respondents indicated that time is not likely to be available once program operation is underway. Effective coordination and cooperation with placement efforts already existing can extend the reach of the placement program.

PRIORITY STEPS IN IMPLEMENTATION

The following functions, in order of suggested priority, offer a basis for planning and scheduling specific activities:

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- Plan and develop program
- Identify placement staff and areas of coordination
- Create awareness of program by students employers, and faculty
- Implement placement services operations from plan
- Implement career development services from plan
- Implement follow-up and evaluation procedures from plan

DEVELOP SCHEDULE OF ACTIVITIES

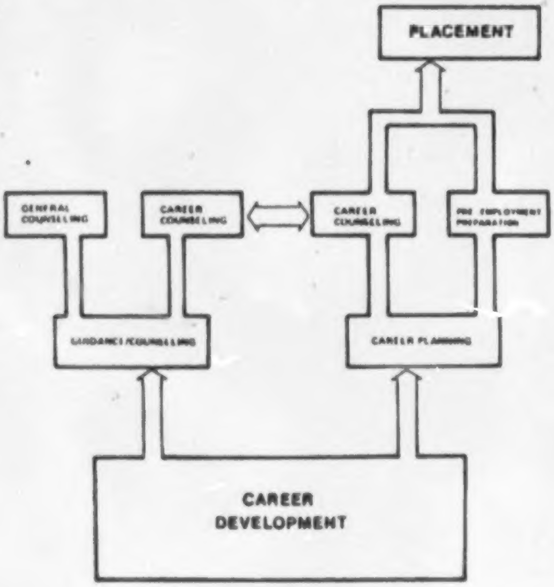
The following schedule of activities is based on the priority steps for implementation of a comprehensive placement program. The activities and time frames suggested are presented in broad terms and may be altered to suit the needs of particular school districts. For examples of related materials and ideas, refer to the resources noted at the right.

CAREER DEVELOPMENT SERVICES

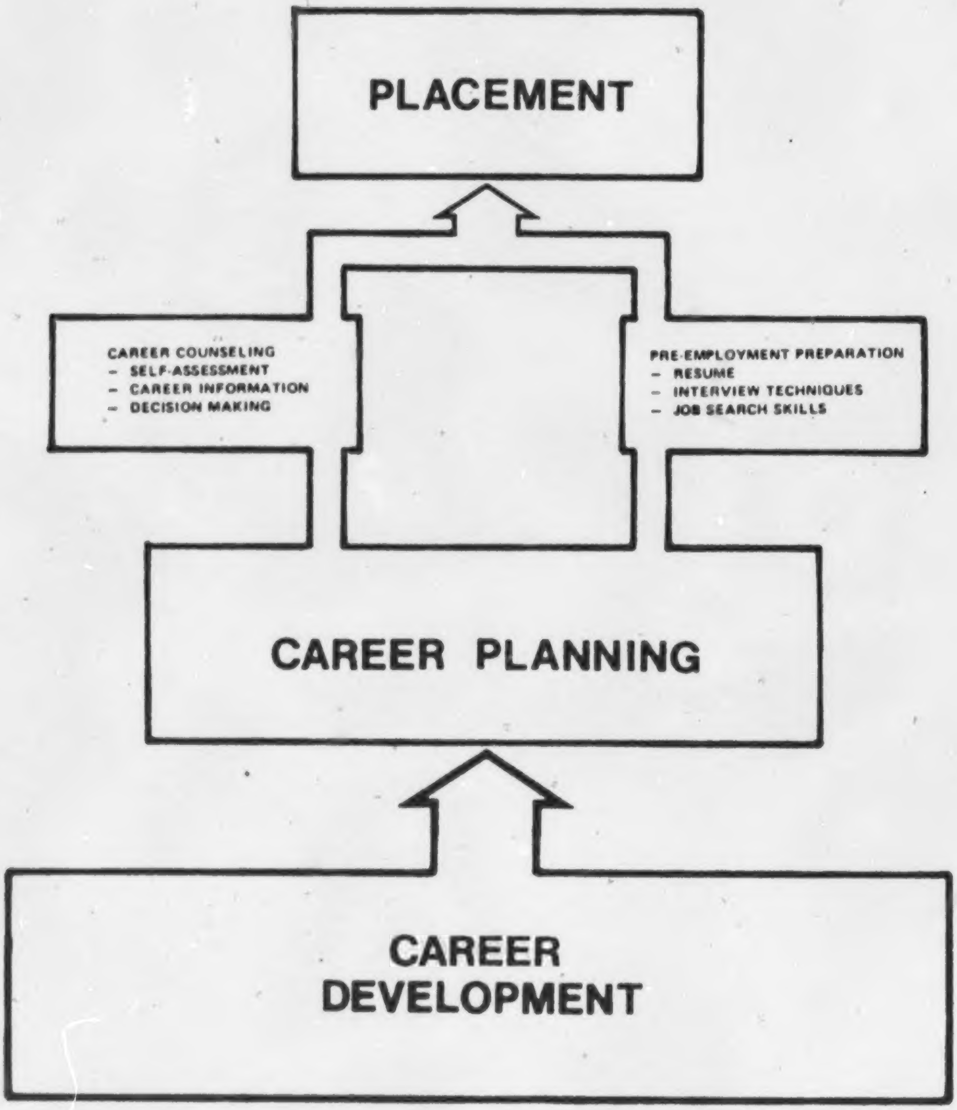
According to Donald Super (1974), career development is "an ongoing developmental process throughout the person's lifetime involving progressively consistent and realistic career choices and the acquisition of career choices, competencies and attitudes." A comprehensive career assistance and placement service with a goal of furthering a student's career development would then be concerned with providing services from early career choice assistance to assistance in placement into higher education or a job consistent with a student's career goals. This kind of service requires, in the case where the persons charged with placement responsibilities and career counseling responsibilities are not the same person, a close working relationship between counseling and placement.

CAREER PLANNING: Placement or Counseling?

The interrelationship between the two departments is illustrated in the figure below.



The types of career planning activities for which the placement program may be concerned are pre-employment preparation and career counseling.



PLACEMENT SERVICES

This section outlines the basic practices and procedures carried out in the operation of a placement office. While other sections of the manual describe the planning, coordination, career planning, and follow-up/evaluation components that make up a comprehensive career placement services program, the fundamental purpose of the program is realized through a placement operation which effectively assists students to implement their career plans. While most of the terms used will apply to job placement, many of the principles and activities discussed apply equally to efforts directed toward placement in higher education.

A MODEL FOR OPERATION

Most placement office operations can be described under one of the four following basic steps:

- Reach and interact with students in order to serve them
- Interact with employers (and educational institutions) in order to identify career opportunities
- Refer students to career opportunities
- Follow-through to improve the effectiveness of placement activities.

EXPLANATION OF TERMS

The CAPS Career Placement Model will be presented in general terms to facilitate its' adaptation to any educational setting. Further explanation of key terms may assist in understanding the system to be described.

CAREER PLACEMENT OPPORTUNITY

Use of this term refers to the full range of career options open to students. Depending upon local priorities and needs, a specific placement office may attempt to help students reach one or more of the following types of opportunities:

Employment: Full-, part-time, and temporary jobs for both students and graduates. Co-op, work-study, distributive education, and other available options for student employment should not be excluded, such as performing arts, self-employment and other graduates career options.

Higher education: Opportunities for transfer to community colleges and four-year colleges and universities, including available programs of study, requirements for entry, and financial assitance.

Training programs: On-job-training, apprenticeship, trade schools and community skill training opportunities.

Military service: Openings and requirements for active or reserve duty with all military branches, including special training, duty, and benefit options.

Volunteer service: Full, part-time, and temporary opportunities for non-paid human resource service with local, state, or national agencies, both public and private.

EMPLOYER DATA BASE

An employer data base refers to that network of information garnered through formal and informal activities which may include manpower surveys, promotional activities, personal visits, and telephone and/or mail communication with employers and higher educational institutions. It is primiarliy through this interaction with employers that career placement opportunties are identified. Job orders, company literature, and colleges catalogs can be added to the systematic accumulation of information. The base of information accumulated constitutes a basic resource for job development, information on current employment trends, and planning activities.

STUDENT DATA BASE

This term refers to the accumulated information on students gained through their interaction with the placement system. Students needing placement assistance are identified and reached through needs assessment, promotion, referral from school staff, walk-in, and other means. Types of contact may involve individual interviews for placement counseling; class meetings to impart placement service information and pre-employment preparation assistance; and other activities which result in knowledge of students as individuals or as a group. If a placement service plans to interact individually with students, it will need some means of maintaining student data, for example, a student registration form. A less formal system that only posts job orders might need only genralized information about students, for example how many graduating seniors are in which programs.

REFERRAL

Referral to placement opportunities involves actually assisting the student to gain entrance to any of the career options identified above. While referral may be direct (in the case of a student interview for a specific job opening arranged as a result of the placement coordinators' telephone call to an employer) or indirect (the student arranges an interview after reading a job notice on the placement office bulletin board), this process involves some sort of interaction between the student and employer data bases.

FOLLOW-THROUGH

Follow-through of placement activities indicates the consistent, day-to-day efforts made to assure that employment opportunities are current, student files are up to date, and that the outcome of referrals is known.

Opportunities made available through the placement office should be updated through telephone or mail verification with the employer, checking outcomes of referrals. Both students and employers provide sources of information on the outcome of referrals, through a combination of telephone, mail, and personal contacts. Follow-through with students placed should be made on a regular basis to identify any adjustment problems. Feedback obtained from these students or their employers provides useful information for the evaluation of services and of educational programs.

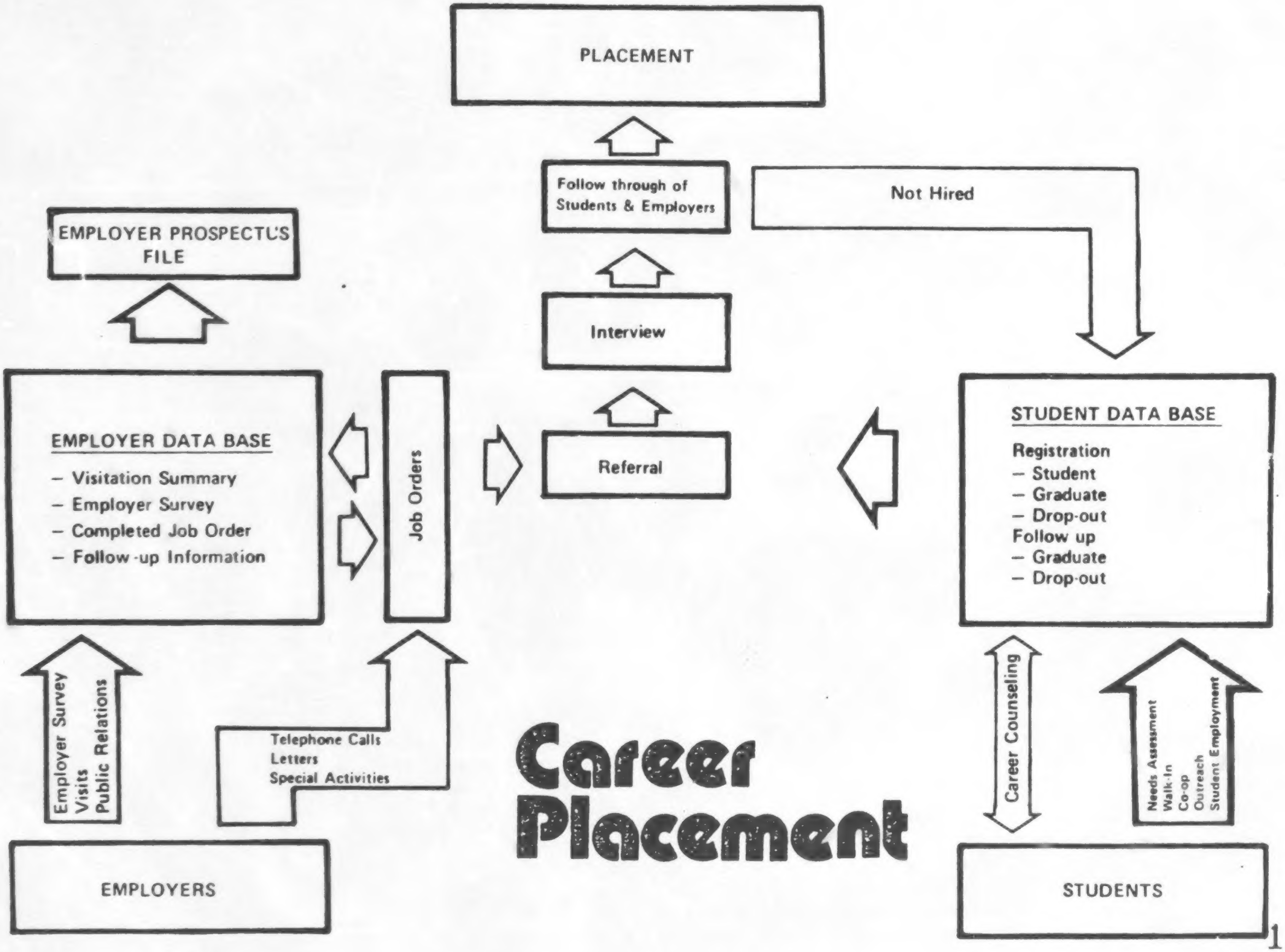
PLACEMENT

This term indicates the implementation of a step in the career plan of a student involving employment transition to another educational or training setting, or other career alternatives consistent with individual aptitude, interest, values, and ability.

Resources
See Placement Services Section
"Suggested Activities for
Placement Operation: 1, 2, 3, 4"

The figure on the following page illustrates the CAPS Career Placement Model for operation of a placement service. The basic steps through which the model assists students to implement career goals are discussed in the pages following the figure.

Career Placement



JUN 15 1979

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The assistance of the Wisconsin Association of Manufacturers and Commerce is acknowledged.